217/782-2113

CLEAN AIR ACT PERMIT PROGRAM (CAAPP) PERMIT
and
TITLE I PERMIT[1]

PERMITTEE

Olin Corporation
Attn: Michael Redington, Manager, Utilities & Environmental
427 North Shamrock Street
East Alton, Illinois 62024-1197

Application No.: 96030015 I.D. No.: 119020AAG
Applicant's Designation: Date Received: March 4, 1996
Operation of: Manufacture brass alloy strip and small arms ammunition
Date Issued: Expiration Date[2]:
Source Location: 427 North Shamrock Street, East Alton, Madison County
Responsible Official: Michael Redington, Manager, Utilities & Environmental

This permit is hereby granted to the above-designated Permittee to OPERATE a brass alloy strip and small arms ammunition manufacture plant, pursuant to the above referenced permit application. This permit is subject to the conditions contained herein.

If you have any questions concerning this permit, please contact Mangu Patel at 217/782-2113.

Donald E. Sutton, P.E.
Manager, Permit Section
Division of Air Pollution Control

DES:MJP:

cc: Illinois EPA, FOS, Region 3
USEPA

[1] This permit may contain terms and conditions which address the applicability, and compliance if determined applicable, of Title I of the Clean Air Act and regulations promulgated thereunder, including 40 CFR 52.21 - federal Prevention of

Significant Deterioration (PSD) and 35 IAC Part 203 - Major Stationary Sources Construction and Modification. Any such terms and conditions are identified within the permit.

[2] Except as provided in condition 8.7 of this permit.

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1.0 SOURCE IDENTIFICATION

1.1 Source

Olin Corporation
427 North Shamrock Street
East Alton, Illinois 62024-1197
618/258-5394

I.D. No.: 119020AAG
Standard Industrial Classification: 3351, Rolling, drawing and extruding of copper based alloys
3482, Small Arms Ammunition

1.2 Owner/Parent Company

Olin Corporation
427 North Shamrock Street
East Alton, Illinois 62024-1197

1.3 Operator

Olin Corporation
Attn: Michael Redington, Manager, Utilities & Environmental
427 North Shamrock Street
East Alton, Illinois 62024-1197
618/258-5394

1.4 General Source Description

Olin Corporation (Olin) is located at 427 North Shamrock Street, East Alton, in Madison County. The source includes two manufacturing facilities identified as the Brass division and Winchester division at East Alton location.

The Brass division produces several copper-based alloys, which are utilized to make specialized sheet and strip products for a diverse array of industries. This division is subdivided into several smaller operations which include raw material formulation and benefication; casting, milling, and finishing.

The Winchester division manufactures ammunition components and assembles which are either assembled into small caliber ammunition (i.e., rimfire, centerfire (up to 50 caliber), and shotshell) or sold directly to customers as ammunition components. Some of the metal produced at Brass division is sent to Winchester division for use in manufacture of ammunition.

2.0 LIST OF ABBREVIATIONS/ACRONYMS USED IN THIS PERMIT

Act	Illinois Environmental Protection Act [415 ILCS 5/1 et seq.]
AP-42	Compilation of Air Pollutant Emission Factors, Volume 1, Stationary Point and Other Sources (and Supplements A through F), USEPA, Office of Air Quality Planning and Standards, Research Triangle Park, NC 27711
ACMA	Alternative Compliance Market Account
ATUs	Allotment Trading Units
BAT	Best Available Technology
Btu	British thermal unit
CAA	Clean Air Act [42 U.S.C. Section 7401 et seq.]
CAAPP	Clean Air Act Permit Program
CAM	Compliance Assurance Monitoring
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DC	Direct Chill
°F	degrees Fahrenheit
Ft^3	cubic foot
Gal	Gallon
Gm	Gram
HAP	Hazardous Air Pollutant
HF	Holding Furnace
Hp	horse power
Hr	Hour
IAC	Illinois Administrative Code
I.D. No.	Identification Number of Source, assigned by Illinois EPA
Illinois EPA	Illinois Environmental Protection Agency
°K	degrees Kelvin
Kg	kilo gram
KW	Kilowatts
Lb	Pound
MACT	Maximum Available Control Technology
Mmcf	Million cubic feet
MF	Melting Furnace
MG	Mega Gram
M	Meter
MmBtu	Million British thermal units
Mo	Month
MRF	Material Reclamation Facility
MW	Mega Watts
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards

OM	Organic Material
PM	Particulate Matter
PM_{10}	Particulate matter with an aerodynamic diameter less than or equal to a nominal 10 microns as measured by applicable test or monitoring methods
ppm	parts per million
PSD	Prevention of Significant Deterioration
Psia	pounds per square inch absolute
RMP	Risk Management Plan
Scf	standard cubic foot
SO_2	Sulfur Dioxide
T	Ton
T1	Title I - identifies Title I conditions that have been carried over from an existing permit
T1N	Title I New – identifies Title I conditions that are being established in this permit
T1R	Title I Revised – identifies Title I conditions that have been carried over from an existing permit and subsequently revised in this permit
USEPA	United States Environmental Protection Agency
VOL	Volatile Organic Liquid
VOM	Volatile Organic Material
Wt.	Weight
Yr	Year

3.0 INSIGNIFICANT ACTIVITIES

3.1 Identification of Insignificant Activities

The following activities at the source constitute insignificant activities as specified in 35 IAC 201.210:

3.1.1 Activities determined by the Illinois EPA to be insignificant activities, pursuant to 35 IAC 201.210(a)(1) and 201.211, as follows:

None

3.1.2 Activities that are insignificant activities based upon maximum emissions, pursuant to 35 IAC 201.210(a)(2) or (a)(3), as follows:

1 Mix muller
6 Grinders
1 Induction coil maintenance
1 Coil insulation removal
1 Small in-line miller
2 Drilling stations
1 Slug melter
1 #2 coil miller uncoiler (UC-1)
1 #2 coil miller decast (DC-1)
1 #2 coil miller flattener (FL-1)
1 Hot mill shear
1 Hot mill scrap dump
1. Pos. 2 brush machine (B-12)
1 Barco degreaser line CT-6)
1 No. 26 line welder
1 Brush degreaser
1 Sulfuric acid storage tank
1 Plant 3 sulfuric acid tank
1 Barco acid cleaning line (CT-7)
42 Baird barrel (BB-1 to BB-42)
2 Baird barrel (BB-50 to BB-51)
1 #2 Rockwell cleaning line (AT-1)
1 #3 Salem cleaning line (AT-2)
2 7 &#8 Rockwell cleaning line (AT-3 & AT-4)
1 #9 &#10 Rockwell cleaning line (AT-5)

2 #1 Cleaning line (CT-1 & CT-2)
2 #6 Strip anneal cleaning tanks (CT-12 & CT-13)
2 #7 Strip anneal cleaning tanks (CT-14 & CT-15)
2 Acid storage tanks (ST-4 & ST-5)
2 #3 Strip anneal cleaning tanks (CT-8 & CT-9)
1 #4 Strip anneal cleaning tanks (CT-10)
1 #5 Strip anneal cleaning tank
2 #6 Cleaning line (CT-5 & CT-6)
1 #8 Cleaning line (CT-16)
1 Tinning machine bath (TB-1)
12 Baird barrel (BB-1 to BB-12)
2 Industrial picklers (AT-16 & AT-26)
9 Hand dip tanks (T-1 to T-9)
1 Dip tank (T-30)
1 2000# Salem pickler (AT-3C)
1 4000# Ransohoff pickler (AT-4C)
1 Nickel plating line (NP-1)
1 Sulfonation tank (T-1)
5 Baird barrels (BB-44 to BB-48)
1 Pneum-A-Vac
10 T-257 Gauge & weigh lines
1 Canister powder line (CPL-1)
2 Wad gauging (WG-1 & WG-2)
2 Baird barrels (BB-1 & BB-2)
12 Cup presses (CP-1 to CP-12)
2 Bullet hopper & feeder (FB-1, FB-2)
3 108 Primer cup presses (CP-13 to CP-15)
2 Dross collection barrels (DC-1 & DC-2)
1.Zone 6 Winchester
1.Bridgewire primer sealing-foil (BW-1)

3.1.3 Activities that are insignificant activities based upon their type or character, pursuant to 35 IAC 201.210(a)(4) through (18), as follows:

Direct combustion units designed and used for comfort heating purposes and fuel combustion emission units as follows: (A) Units with a rated heat input capacity of less than 2.5 mmBtu/hr that fire only natural gas, propane, or liquefied petroleum gas; (B) Units with a rated heat input capacity of less than 1.0 mmBtu/hr that fire only oil or oil in combination with only natural gas, propane, or

liquefied petroleum gas; and (C) Units with a rated heat input capacity of less than 200,000 Btu/hr which never burn refuse, or treated or chemically contaminated wood [35 IAC 201.210(a)(4)].

Extruders used for the extrusion of metals, minerals, plastics, rubber, or wood, excluding extruders used in the manufacture of polymers, provided that volatile organic materials or class I or II substances subject to the requirements of Title VI of the CAA are not used as foaming agents or release agents or were not used as foaming agents in the case of extruders processing scrap material [35 IAC 201.210(a)(5)].

Furnaces used for melting metals, other than beryllium, with a brim full capacity of less than 450 cubic inches by volume [35 IAC 201.210(a)(6)].

Equipment used for the melting or application of less than 50,000 lbs/year of wax to which no organic solvent has been added [35 IAC 201.210(a)(7)].

Storage tanks of organic liquids with a capacity of less than 10,000 gallons and an annual throughput of less than 100,000 gallons per year, provided the storage tank is not used for the storage of gasoline or any material listed as a HAP pursuant to Section 112(b) of the CAA [35 IAC 201.210(a)(10)].

Storage tanks of any size containing virgin or re-refined distillate oil, hydrocarbon condensate from natural gas pipeline or storage systems, lubricating oil, or residual fuel oils [35 IAC 201.210(a)(11)].

Die casting machines where a metal or plastic is formed under pressure in a die [35 IAC 201.210(a)(12)].

Printing operations with aggregate organic solvent usage that never exceeds 750 gallons per year from all printing lines at the source, including organic solvent from inks, dilutents, fountain solutions, and cleaning materials [35 IAC 201.210(a)(14)].

Gas turbines and stationary reciprocating internal combustion engines of less than 112 kW (150 horsepower) power output [35 IAC 201.210(a)(15)].

Gas turbines and stationary reciprocating internal combustion engines of between 112 kW and 1,118 kW (150 and 1,500 horsepower) power output that are emergency or standby units [35 IAC 201.210(a)(16)].

Storage tanks of any size containing exclusively soaps, detergents, surfactants, glycerin, waxes, vegetable oils, greases, animal fats, sweeteners, corn syrup, aqueous salt solutions, or aqueous caustic solutions, provided an organic solvent has not been mixed with such materials [35 IAC 201.210(a)(17)].

Loading and unloading systems for railcars, tank trucks, or watercraft that handle only the following liquid materials, provided an organic solvent has not been mixed with such materials: soaps, detergents, surfactants, lubricating oils, waxes, glycerin, vegetable oils, greases, animal fats, sweetener, corn syrup, aqueous salt solutions, or aqueous caustic solutions [35 IAC 201.210(a)(18)].

3.1.4 Activities that are considered insignificant activities pursuant to 35 IAC 201.210(b).

3.2 Compliance with Applicable Requirements

Insignificant activities are subject to applicable requirements notwithstanding status as insignificant activities. In particular, in addition to regulations of general applicability, such as 35 IAC 212.301 and 212.123 (Condition 5.2.2), the Permittee shall comply with the following requirements, as applicable:

3.2.1 For each cold cleaning degreaser, the Permittee shall comply with the applicable equipment and operating requirements of 35 IAC 215.182, 218.182, or 219.182.

3.2.2 For each particulate matter process emission unit, the Permittee shall comply with the applicable particulate matter emission limit of 35 IAC 212.321 or 212.322. For example, the particulate matter emissions from a process emission unit shall not exceed 0.55 pounds per hour if the

emission unit's process weight rate is 100 pounds per hour or less, pursuant to 35 IAC 266.110.

3.2.3 For each organic material emission unit that uses organic material, e.g., a mixer or printing line, the Permittee shall comply with the applicable VOM emission limit of 35 IAC 215.301, 218.301, or 219.301, which requires that organic material emissions not exceed 8.0 pounds per hour or do not qualify as photochemically reactive material as defined in 35 IAC 211.4690.

3.3 Addition of Insignificant Activities

3.3.1 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type that is identified in Condition 3.1, until the renewal application for this permit is submitted, pursuant to 35 IAC 201.212(a).

3.3.2 The Permittee must notify the Illinois EPA of any proposed addition of a new insignificant activity of a type addressed by 35 IAC 201.210(a) and 201.211 other than those identified in Condition 3.1, pursuant to Section 39.5(12)(b) of the Act.

3.3.3 The Permittee is not required to notify the Illinois EPA of additional insignificant activities present at the source of a type identified in 35 IAC 201.210(b).

4.0 SIGNIFICANT EMISSION UNITS AT THIS SOURCE

Emission Unit	Description	Emission Control Equipment
01	#1 D.C. Casting units (MF-11 to MF-15 & HF-3)	Cyclone (MC-3), American air filter #2 Baghouse (BH-4)
	#4 D.C. Casting units (MF-17 to MF-21 & HF-5)	
	Ascast furnace (ASC-1)	
	New Ascast furnace (ASC-2)	
	#2 D.C. Casting units (MF-1 to MF-5 & HF-1)	Cyclone (MC-1), Wheelabrator #1 Baghouse (BH-1)
	#3 D.C. Casting units (MF-6 to MF-10 & HF-2)	
	#5 D.C. Casting units (MF-22 to MF-26 & HF-6)	Cyclone (MC-2), Lear-Siegler #3 Baghouse (BH-5)
	Wertli Caster (MF-16 & HF-4)	Carborundum Baghouse (BH-3)
	Technica-Guss Caster (MF-27 & HF-7)	
	Aerofall Mill(AM-1, FSB-1,VF-1,FH-1)	Custom System Baghouse (BH-7)
	1F Mix Muller (MM-3), Low profile turbine mixer (LP-1)	Pangborn Baghouse (BH-2)
	2F Mix Muller (MM-1)	Rotoclone RC-1)
	Hot Mill (HM-1)	-
	#2 Coil Miller (CM-2)	Skimmer (SK-1)
	#3 Coil Miller (CM-3)	Baffled Settling Chamber (BSC-1)
	Slab heating furnace (SF-2)	-
	Slab heating furnace (SF-1)	-
	Abrasive cleaner (ABRC-1)	Cyclone (ACCR-1) & Baghouse (ACBH-1)
	#13 Bell anneal(BA-13)	
	#35 Rolling/Bonding mill (RCM-3)	Stage filter (SFS-3)

	#35 Rolling/Bonding mill brushing unit (B-10)	Wet dust collector (WDC-1)
	#34 Rolling(RM-28) mill	Oil mist collector (OMC-28)
	Mill & Skive line (RM-25)	Cyclone, Drop box, Moisture separator (MS-1)
	Propane plant (V-1) and vaporizer flare (FL-1)	-
	Charcoal burners (CB-1 thru CB-12)	-
	4 Stand tandem mill (TM-4)	Oil mist eliminator (OME-4)
	New tandem mill (RM-7)	Mist eliminator (FE-6)
	Old tandem mill (RM-1)	
	Posit bond mill (BM-2)	Filter (F-1)
	Rolling mill #5 (RM-2) #6 (RM-9) #9 (RM-3) #18 (RM-4) #19 (RM-5) #20 (RM-6) #23 (RM-8) #24 (RM-24	Mist Eliminator FE-1 FE-8 FE-2 FE-3 FE-4 FE-5 FE-7 OMC-24
	Bell Anneal #7 (BA-7) #9 (BA-9) #10 (BA-10) #11 (BA-11) #12 (BA-12)	
	Strip Anneal #3 (SA-3) #4 (SA-4) #5 (SA-5) #6 (SA-6) #7 (SA-7) #8 (SA-8)	
	#9 Cleaning line	Scrubber (FS-2)
	Posit bond brushing (BM-1)	Rotoclone (RC-1)
	Hot dip tin line	Heil scrubber (SCRUB-1)

	2 Limestone silos (S-1,S-2)	Filters (FF-1,FF-2)
	#1 Rockwell furnace (AF-2)	
	400# Salem furnace (AF-3C)	
	Bead blaster (BB-1)	Cyclone (CYC-1), Baghouse BBH-1
	Ballastic sand reclaim	Baghouse (SBH-1)
	3 Lead melt kettles (LK-1 to LK-3), Dross melt pot (DM-1)	Baghouse (STBH-1)
	Lower billet casting furnace (LK-4), Upper billet casting furnace (LK-6)	
	Extrusion press tumblers (EPT-1 to EPT-4)	
	Shot dryer (D-1 to D-3), Drier pots (DP-1 to DP-6) & polisher (P-1 to P-4)	Rotoclone (RC-2)
	Central vacuum system (CVS-1)	Cyclone (CS-1), Bag seperator (BS-1)
	Buckshot tumblers (T-1 & T-2), Lead pump chip-out (LPC-1)	Baghouse (TBH-2)
	Manurhin powder handling system (CSB-1 to CSB-4)	Wet seperator (WS-1), Bag seperator (BS-1)
	Resin storage silo (SS-1 to SS-3)	Bin filters (BF-1, BF-2)
	Wad tumbling operation (Wh-1,2,3)	Rotoclone (WR-1,2,3)
	Shot shell Wad puller wet vacuum system (WP-1)	Scrubber (WPS-1), Bag filter (WPF-1)
	Destructor furnace (DF-1)	
	50 Caliber cappers capping sealant (50CA-1,50CA-2)	
	50 Caliber cappers mouth waterproofing (50CA-1,50CA-2)	
	50 Caliber loaders (LO-1,LO-2) Mode 1: Blank sealant	
	50 Caliber loaders (LO-1,LO-2) Mode 2: Tip identification	
	50 Caliber re-work line (RE-1)	
	50 Caliber primer sealing line (PS-7)	
02	5.56 Penetrator line, Tip identification (PE-1)	None
	5.56 SRTA Coating Operation (SRTA-1 & SRTA-2)	None
	Cappers-Sealant(CA-1 thru CA-41)	None

	Cappers-Mouthwaterproofing(CA-1 thru CA-41)	None
	Mouth re-work line (MRE-1)	None
	Paper tube rollers-Glue (PR-1,PR-2 & PR-3)	None
	Power tool loading complexes (LC-2,LC-4,LC-5 & LC-6)	None
	Proof load line (PL-1 & PL-2)	None
	T-500 Blank Sealant line (BSL-1)	None
	T-500 mouth re-work (RE-2, RE-3 & RE-4)	None
03	Paper tube rollers-Oil/Solvent mixtures (PR-1,PR-2 & PR-3)	None
	108 Primer sealing line (PS-8)	None
	209 Battery cup sealing line (BC-1)	None
	50 Caliber primer sealing line (PS-7)	None
	Centerfire primer sealing line (PS-1 to PS-6)	None
	Ejection cartridge sealant line (EC-1)	None
	T-500 Tumblers (TM-1 to TM-3)	None
	No.4 Tumblers (TM-4)	None
	No.8 Strip anneal BTA in oil (BTA-1)	None
	Anti-Fretting applications (AFA-3,5,9,12,16 thru 21 &SL-30)	None
	Drip-On oil process (DOP-5,DOP-4)	None
	Posit bond brush cleaning (PBBC-1)	None
	Zone 3 gasoline tank (AST-5)	Submerged Loading
	Zone 4 gasoline tank (GT-4)	Submerged Loading
	Zone 7 Brass maintenance gasoline tank (AST-2)	Submerged Loading
	Zone 17 gasoline tank (AST-16)	Submerged Loading
	Zone 3 gasoline tank (AST-1)	Submerged Loading
04	Cleaver Brooks boilers (BA-1 thru B-6)	None
05	Hot water heater #1	None
	Hot water heater #1	None
	Zone 4 boiler	None
06	Chrome Plating Line (PT-1, PT-2 & PT-3)	Mist eliminator (ME-1)
07	Gasoline Storage Tanks	Submerged Loading

5.0 OVERALL SOURCE CONDITIONS

5.1 Source Description

5.1.1 This permit is issued based on the source requiring a CAAPP permit as a major source of NO_x, PM, VOM and HAP emissions.

5.2 Applicable Regulations

5.2.1 Specific emission units at this source are subject to particular regulations as set forth in Section 7 (Unit-Specific Conditions) of this permit.

5.2.2 In addition, emission units at this source are subject to the following regulations of general applicability:

a. No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally overhead at a point beyond the property line of the source unless the wind speed is greater than 40.2 kilometers per hour (25 miles per hour), pursuant to 35 IAC 212.301 and 212.314.

Compliance with this requirement is considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.

b. No person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to the requirements of 35 IAC 212.122, pursuant to 35 IAC 212.123(a), except as allowed by 35 IAC 212.123(b) and 212.124.

Compliance with this requirement is considered to be assured by the inherent nature of operations at this source, as demonstrated by historical operation.

5.2.3 Fugitive Particulate Matter Operating Program

a. This source shall be operated under the provisions of an operating program prepared by the Permittee and submitted to the Illinois

EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions [35 IAC 212.309(a)].

b. The operating program shall be amended from time to time by the Permittee so that the operating program is current. Such amendments shall be consistent with the requirements set forth by this Condition and shall be submitted to the Illinois EPA [35 IAC 212.312].

c. All normal traffic pattern roads and parking facilities located at this source shall be paved or treated with water, oils, or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils, or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program [35 IAC 212.306].

5.2.4 Ozone Depleting Substances

The Permittee shall comply with the standards for recycling and emissions reduction of ozone depleting substances pursuant to 40 CFR Part 82, Subpart F, except as provided for motor vehicle air conditioners in Subpart B of 40 CFR Part 82:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

5.2.5 Risk Management Plan

Should this stationary source, as defined in 40 CFR Section 68.3, become subject to the Accidental Release Prevention regulations in 40

CFR Part 68, then the owner or operator shall submit [40 CFR 68.215(a)(2)(i) and (ii)]:

a. A compliance schedule for meeting the requirements of 40 CFR Part 68 by the date provided in 40 CFR 68.10(a); or

b. A certification statement that the source is in compliance with all requirements of 40 CFR Part 68, including the registration and submission of the Risk Management Plan (RMP), as part of the annual compliance certification required by 40 CFR Part 70 or 71.

5.2.6 a. Should this stationary source become subject to a regulation under 40 CFR Parts 60, 61, or 63, or 35 IAC after the date issued of this permit, then the owner or operator shall, in accordance with the applicable regulation(s), comply with the applicable requirements by the date(s) specified and shall certify compliance with the applicable requirements of such regulation(s) as part of the annual compliance certification, as required by 40 CFR Part 70 or 71.

b. No later than upon the submittal for renewal of this permit, the owner or operator shall submit, as part of an application, the necessary information to address either the non-applicability of, or demonstrate compliance with all applicable requirements of any potentially applicable regulation which was promulgated after the date issued of this permit.

5.2.7 Episode Action Plan

a. If the source is required to have an episode action plan pursuant to 35 IAC 244.142, the Permittee shall maintain at the source and have on file with the Illinois EPA a written episode action plan (plan) for reducing the levels of emissions during yellow alerts, red alerts, and emergencies, consistent with safe operating procedures. The plan shall contain the information specified in 35 IAC 244.144.

b. The Permittee shall immediately implement the appropriate steps described in this plan should an air pollution alert or emergency be declared.

c. If a change occurs at the source which requires a revision of the plan (e.g., operational change, change in the source contact person), a copy of the revised plan shall be submitted to the Illinois EPA for review within 30 days of the change. Such plans shall be further revised if disapproved by the Illinois EPA.

d. For sources required to have a plan pursuant to 35 IAC 244.142, a copy of the original plan and any subsequent revisions shall be sent to:

i. Illinois EPA, Compliance Section; and

ii. For sources located in Cook County and outside of the city of Chicago: Cook County Department of Environmental Control; or

iii. For sources located within the city of Chicago: Chicago Department of Environmental Control.

5.2.8 CAM Plan

This stationary source has a pollutant-specific emissions unit that is subject to 40 CFR Part 64, Compliance Assurance Monitoring (CAM) for Major Stationary Sources. The source must submit a CAM plan for each affected pollutant-specific emissions unit upon application for renewal of the initial CAAPP permit, or upon a significant modification to the CAAPP permit for the construction or modification of a large pollutant-specific emissions unit which has the potential post-control device emissions of the applicable regulated air pollutant that equals or exceeds major source threshold levels.

5.3 Non-Applicability of Regulations of Concern

None

5.4 Source-Wide Operational and Production Limits and Work Practices

In addition to the source-wide requirements in the Standard Permit Conditions in Section 9, the Permittee shall fulfill the following source-wide operational and production limitations and/or work practice requirements:

None

5.5 Source-Wide Emission Limitations

5.5.1 Permitted Emissions for Fees

The annual emissions from the source, not considering insignificant activities as addressed by Section 3.0 of this permit, shall not exceed the following limitations. The overall source emissions shall be determined by adding emissions from all emission units. Compliance with these limits shall be determined on a calendar year basis. These limitations (Condition 5.5.1) are set for the purpose of establishing fees and are not federally enforceable.

Permitted Emissions of Regulated Pollutants

Pollutant	Tons/Year
Volatile Organic Material (VOM)	165.00
Sulfur Dioxide (SO_2)	57.00
Particulate Matter (PM)	346.00
Nitrogen Oxides (NO_x)	293.00
HAP, not included in VOM or PM	20.00
TOTAL	881.00

5.5.2 Emissions of Hazardous Air Pollutants

Source-wide emission limitations for HAPs as listed in Section 112(b) of the CAA are not set. This source is considered to be a major source of HAPs.

5.5.3 Other Source-Wide Emission Limitations

Other source-wide emission limitations are not set for this source pursuant to either the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21, Illinois EPA rules for Major Stationary Sources Construction and Modification, 35 IAC Part 203, or Section 502(b)(10) of the CAA. However, there may be unit specific emission limitations set forth in Section 7 of this permit pursuant to these rules.

5.6 General Recordkeeping Requirements

5.6.1 Emission Records

The Permittee shall maintain records of the following items for the source to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

Total annual emissions on a calendar year basis for the emission units covered by Section 7 (Unit Specific Conditions) of this permit.

5.6.5 Records for Operating Scenarios

N/A

5.6.6 Retention and Availability of Records

a. All records and logs required by this permit shall be retained for at least five years from the date of entry (unless a longer retention period is specified by the particular recordkeeping provision herein), shall be kept at a location at the source that is readily accessible to the Illinois EPA or USEPA, and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request.

b. The Permittee shall retrieve and print, on paper during normal source office hours, any records retained in an electronic format (e.g., computer) in response to an Illinois EPA or USEPA request for records during the course of a source inspection.

5.7 General Reporting Requirements

5.7.1 General Source-Wide Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall

describe the probable cause of such deviations, and any corrective actions or preventive measures taken.

5.7.2 Annual Emissions Report

The annual emissions report required pursuant to Condition 9.7 shall contain emissions information for the previous calendar year.

5.8 General Operational Flexibility/Anticipated Operating Scenarios

N/A

5.9 General Compliance Procedures

5.9.1 General Procedures for Calculating Emissions

Compliance with the source-wide emission limits specified in Condition 5.5 shall be based on the recordkeeping and reporting requirements of Conditions 5.6 and 5.7, and compliance procedures in Section 7 (Unit Specific Conditions) of this permit.

6.0 NOT APPLICABLE TO THIS PERMIT

7.0 UNIT SPECIFIC CONDITIONS

7.1 Unit 01 – Zone 17 Process Emission Sources

7.1.1 Description

Casting Units - (Direct Chill Casting NO. 1 D.C. through NO. 5, #1 & #2 ASCASTS, WERTLI (Melt Furnace) and TECHNICA-GUSS)

Containers charged with scrap and virgin materials blended to meet an alloy specification are transported from the Raw Material department to the casting floor and then to the charging hopper that feeds a melting furnace.

Melting is done in low-frequency, channel induction furnaces. Since molten metal loops serve as the transformer's secondary circuit, the solid metal is always charged into a furnace partially full of molten metal.

A layer of carbonaceous or salt material typically covers the molten metal to protect it from oxidation and minimize heat loss. This cover is periodically skimmed off to remove dross and slag, and the melt is re-covered. The skimmings are normally recycled to recover the metal content for melting.

When the melting furnace (MF) is full, it is poured down a transfer trough to a much larger holding furnace that is similar to the melting furnaces in basic design and operation. The melting furnace, partially emptied, can then accept more solid metal and repeat its melting cycle.

When the holding furnace is poured, the molten metal flows down a short distributor and through ceramic tubes into the molds of the casting machine. In the direct chill (DC) Casting Units, up to four ingots can be cast during one pour. For the Ascast Systems, up to two ingots can be cast per pour. The Technica-Guss Caster produces a long horizontal metal strip that can be immediately upcoiled.

The ingots in the DC and Ascast Units are cast either into slabs, strips, or billets (castings) using a semi-continuous, direct chill method wherein the molten metal solidifies as a shell against a short, water cooled copper

mold. The newly formed casting is lowered from the mold as solidification progresses and is passed through a water spray to complete solidification. The completed castings are removed from the casting machine by an overhead crane.

The production cycle continues as the partially emptied holding furnace is then available to accept the next batch of molten metal from the melting furnaces. When a new melt furnace is placed into service, the Wertli system may be used to provide an initial molten metal priming charge. Any output from the Wertli furnace shows up as part of the production from the individual casting units.

Each of the five (5) D.C. Casting Units and the two (2) Ascasts are served by an exhaust system consisting of a cyclone separator, a baghouse and induced draft fans. The Wertli/TG system is serviced by an exhaust system that has a baghouse and induced draft fan. The primary purpose of the cyclone separator is to drop out large hot particles to prevent them from entering the baghouse and igniting the bag material. The baghouses are the primary control device for removing particulate matter from the exhaust gases.

Aerofall Mill & Feed Hopper:

The purpose of the Aerofall Mill is to reclaim the metallic portion of the dross and slag that is skimmed off of the melting and holding furnaces in the casting operation.

The furnace skimmings are kept in piles which are segregated by alloy prior to being run through the Aerofall Mill. Material is scooped from the appropriate pile and taken to the mill where it is loaded into the mill either using the large external feed storage bin or by dumping the material directly onto the vibrating feeder conveyor.

The material then travels up the feeder conveyor to the feed hopper. From there it travels through a vibrating feeder and a drier and then enters the mill drum. As the drum rotates, the pieces of reclaim fall against each other which separates the dirt and fine particles from the metallic material being reclaimed.

As the dirt separates from the metal, it is sucked out of the mill drum through ductwork to the vertical classifier where the heavier particles fall to the bottom and are augured away to a container. The smaller and lighter particles continue through the ductwork to the cyclone separator where the heavier of the remaining particles fall out and are containerized. The remaining particles go to the baghouse where they are removed to a container.

The metallic reclaim material exits the mill drum onto a flat belt conveyor which in turn drops the material onto the incline belt conveyor. At the end of the incline belt conveyor, the material falls onto the vibrating conveyor that takes the material under the magnetic separator where any iron is removed and scrapped. The good reclaim then proceeds to the end of the vibrating table where it falls into a drop bottom container. That container is taken to the raw materials department where the material is used back into good product on a controlled basis.

A second baghouse is used to remove particles from the Aerofall Mill Feed Hopper System, 1F Mix Muller and the Low Profile Turbine Mixer.

Mix Mullers:

The mix mullers are used for batch mixing of dry refractory mix with water. The mix is used in the construction and repair of electric induction furnaces and launders for the casting operation the casting operations. Depending upon the capacity of the muller, each batch includes up to Five (5) to twenty (20) one hundred pound bags of refractory mix and approximately twenty to eighty pounds of water. Emissions occur during the loading of the refractory mix and during mixing after loading until water has "wetted" the refractory mix.

Particulate matter emissions from the 1F mix muller (MM-3) and low profile turbine mixer (LP-1) are controlled by the Pangborn Baghouse (BH-2). Emissions from the 2F Mix Muller (MM-1) are controlled by a Rotoclone (RC-1).

Hot Mill:

Hot mill rolling process consists of passing metal maintained above its recrystallization temperature between two work rolls revolving in opposite directions and spaced such that the distance between the rolls is somewhat less than the incoming material's thickness, thereby applying force and reducing the metal's thickness. Because the material is worked above its recrystallization temperature, strain hardening does not occur and large overall reductions in thickness are possible. This particular hot mill is a reversing mill, and approximately a dozen passes are used to reduce the ingot thickness from approximately 6 inches to about 1/2 inch. After being rolled to final thickness, the hot metal strip is quenched by water sprays and coiled in an upcoiler.

During the hot rolling process, the work rolls are flooded with water to prevent heat build-up in the rolls. This water then flows by gravity back to a recirculating cooling water system.

A small percentage of the metal processed on the Hot Mill is a beryllium copper alloy. Olin has installed additional emission controls which are placed in service only while processing the beryllium copper alloy. These additional emission controls are not required to meet any applicable rules but the equipment is maintained in order protect workers from exposure beryllium dust.

No. 2 Coil Miller:

Coil Milling machine removes oxides formed on the metal strip's surface during Slab Reheating and Hot Rolling. Rotating arbors carrying milling inserts mechanically scalp the top and bottom strip surfaces clean, and edge millers are sometimes used to remove the oxide from the strip edges. Additional milling passes may be made in order to remove any residual superficial surface defects. The metal chips removed during milling are collected and recycled. The miller knives are cooled and lubricated by a recirculating emulsified oil solution.

The metal chips and soluble oil solution removed during milling are pneumatically conveyed thru duct work to an American Air Filter (AAF) Skimmer. The AAF Skimmer is a low-pressure-drop centrifugal precipitator which removes the metal chips and soluble oil solution from the air stream prior to discharge thru a stack.

Slab Heating Furnaces:

The slab heating furnaces are used to heat cast bars of copper alloy metal to the proper hot working temperature for the hot rolling process. The slab heating furnaces are normally natural gas fired but may also be fired with a propane-air mixture in the event of a natural gas supply curtailment.

Abrasive Cleaner:

The abrasive cleaning equipment is used to clean used mold liners prior to being rebuilt. The mold liners range in weight between 200 and 280 pounds each with an average weight of approximately 220 pounds. It is estimated that it takes 20 minutes to clean each mold liner. Approximately twenty one (21) mold liners are cleaned per week. Approximately 2 lbs. of scale and other built up material are removed from each used mold liner.

During the cleaning operation, the nozzle rate of the aluminum oxide abrasive material is approximately 672 pounds per hour in a 113 CFM air stream.

The cyclone reclaimer collects approximately 99% of the abrasive material and 80% of the removed material from the air system.

No. 35 Rolling/Bonding Mill - Brushing Unit:

This machine performs two functions: cold rolling and bonding. In the cold rolling mode, brass alloy strip is reduced in thickness by means of two opposed parallel steel rollers which rotate and apply force to each surface of the strip. A lubricant is applied to the rolls and the strip for cooling and to reduce friction. The lubricant is continuously recirculated and filtered. Multiple passes on a given coil are possible by reversing the direction of the strip travel until the desired strip hardness or thickness are obtained.

In the bonding mode, two or more strips are threaded into the rolls. A heavy reduction in thickness is provided by the rolls, under high pressure. The combination of pressure and the increase in length of the strip (as a result of thickness reduction) caused the materials to adhere at the interface. A small amount of lubricant is applied to the rolls to

prevent the brass alloys from sticking to the roll surface. In-line brushing is done to the mating surfaces to facilitate adhesion and prevent surface contaminants from becoming trapped at the bonded interface.

NOTE: No. 35 Rolling/Bonding Mill was formerly identified as No. 3 Rolling/Cladding Mill.

Particulate matter emissions are controlled with a Stage filter (SFS-3) for the rolling/bonding mill and a wet dust collector (WDC-1) for the brushing unit.

No. 34 Rolling Mill:

This mill is a Sendzimir type configuration, using a pyramid arrangement of rolls on each side of the strip to apply a force for reducing thickness of brass alloys. A mineral oil lubricant is used to provide cooling and reduce friction. The oil is continuously recirculated and filtered. Multiple passes on a given coil are possible by reversing the direction of the strip travel until the desired strip hardness or thickness are obtained.

NOTE: No. 34 Rolling Mill was formerly identified as No. 28 Rolling Mill.

Particulate matter emissions are controlled with a oil mist collector (OMC-28).

Mill And Skive Line:

Olin PolygageÒ products are made on this machine. A PolygageÒ product is coiled strip having two or more thicknesses across the width, rather than a rectangular cross-sectional area. The profiling is done by means of milling and/or skiving. In either case, metal is removed continuously as the strip is passed under shaped tooling. Both types of metal removal require cooling which is done by flooding the tools and the strip with a water soluble lubricant. The milled chips and lubricant are removed from the milling process thru an exhaust and chip collection system (i.e., Cyclone, Drop box, Moisture separator (MS-1)).

Propane Plant & Vaporizer Flare:

The purpose of the Propane Plant is to vaporize propane liquid and mix it with air to make a natural gas equivalent from propane gas, which can be used as fuel supply to Olin's East Alton manufacturing facilities in the event of a natural gas curtailment. The natural gas equivalent can be supplied to natural gas fired equipment without requiring modification to the equipment. It can be used to either supplement the natural gas supply or to completely replace it.

Liquid propane is pumped from six storage tanks to a propane gas fired vaporizor (V-1) where it is vaporized and piped to a mixing building. In the mixing building, compressed air and propane are combined in the ratio required to produce the natural gas equivalent having a heating value of 1450 BTU per cubic foot. The natural gas equivalent is piped directly from the building to the natural gas supply line.

During start-up or testing operations, the natural gas equivalent is burned off to the atmosphere through a burnoff flare. Adjacent to the burnoff flare (FL-1), is a pilot burner which remains lit whenever the propane plant is in operation. During start-up, the pilot burner is fired with natural gas, but after the plant is in operation, it is fired with the natural gas equivalent.

Charcoal Burners (CB-1 thru CB-12):

In order to control the metallurgical properties of the molten metal in holding furnaces in the casting operation, various types of furnace melt cover materials are spread over the top of the molten metal. The melt cover materials include various salts and carbonaceous materials. The melt cover material used varies from alloy to alloy and is dependent on the metallurgical characteristics of alloy being cast. One of the carbonaceous materials used as a furnace melt cover is charcoal made from various hard woods. It is used on approximately 14% of the total pounds cast in the operations.

The charcoal material has to be ignited prior to being fed into the holding furnace as a melt cover A device called a charcoal burner is used for this purpose. Charcoal is manually fed into the charcoal burner where it is ignited by the burning charcoal in the unit and then it is manually fed as required into the holding furnace.

The furnace melt cover material is a raw material which is part of the process weight rate for the casting process. Therefore, the emissions from the charcoal material are considered to be part of the allowable emissions from the casting process when it is used.

4 Stand Tandem Mill:

The purpose of these machines is to reduce the thickness of varying gauge copper alloy strip by passing the strip through four sets of two opposing steel rolls which are supported by larger back up rolls. The mills are capable of processing strip with width up to 32". A soluble oil & water cooling solution is used to cool the rolls and reduce friction. The coolant is filtered and recirculated. This is a one way mill meaning that metal cannot go in a reverse direction through the mill. A mist eliminator is used to reduce particulate matter emissions from the process emission unit.

New Tandem Mill:

The purpose of this rolling mill is to reduce the thickness of heavy gauge copper alloy sheet using a cold rolling process. This is done by passing the strip through two work rolls supported by larger back up rolls. A cooling solution of soluble oil and water is applied to the rolls and the strip for cooling and to reduce friction. The solution is filtered to remove tramp oil and recirculated. This is a one way mill meaning metal can not go in the reverse direction through the mill. A mist eliminator is used to reduce particulate matter emissions from the process emission unit.

Old Tandem Mill:

The purpose of these machines is to reduce the thickness of heavy gauge copper alloy sheet. This is done by passing the strip through two driven steel rolls supported by larger back up rolls. A second roll stand reduces the thickness further. A cooling solution of soluble oil and water is applied to the rolls and the strip for cooling and to reduce friction. The solution is filtered and recirculated. These are one way mills meaning metal can not go in the reverse direction through the mill.

Posit Bond Mill:

The purpose of this mill is to produce a clad material from three strips of metal. Three strips are simultaneously fed into the roll bite of the mill. A reduction in thickness is provided by the rolls, under high pressure. The reduction causes the materials to adhere at the interface. Soluble oil in water is used to cool and lubricate the rolls and an oil is dripped onto the bonded coil as it is wound to prevent sticking. The lubricating oil is collected and recirculated. A mist eliminator is used to reduce particulate matter emissions from the process emission unit.

Rolling Mills:

These rolling mills are used to reduce the thickness of varying gauge copper alloys by using a cold rolling process. This is done by passing the strip through two work rolls which are supported by larger back up rolls. The mills are capable of producing strip with width ranging from 5" to 32". A cooling solution of soluble oil is applied to the rolls and the strip for cooling and to reduce friction. The solution is filtered to remove tramp oil and recirculated. This is a one way mill meaning the metal cannot go in the reverse direction.
Mist eliminators are used to reduce particulate matter emissions from the process emission units.

Bell Anneals:

Bell Anneals are batch-type furnaces used for annealing metal in coil from. The coils of metal are placed on a base and covered by a retort or "bell" to seal it from the atmosphere. A recirculating nitrogen atmosphere is used throughout the process to minimize metal oxidation. One of two gas fired furnaces are placed over the retort containing the metal, and the batch is heated to the proper temperature and held for the proper time. The furnace is then removed and a cooling bell is installed. The retort, and the metal it contains, is cooled first by forced air and/or by water. After cooling is complete, the cooling bell and retort are removed and the heat treated coils of metal are unloaded.

Propane - The furnaces are normally natural gas fired, but may also be fired with a propane-air mixture in the event of a natural gas supply curtailment.

Strip Anneals:

The purpose of the strip anneals is to anneal a bar of copper alloy which is heated in a controlled atmosphere to relieve stress in the strip induced by cold working. This is a continuous machine in which the coil is unwound and fed at a specified speed through a furnace at a given temperature. After annealing, the metal receives an acid clean and rinse. Looping towers are at the entry and exit ends to allow for continuous movement of material through the furnace. BTA is applied in the final water rinse to protect the metal surface from oxidation.

No. 9 Cleaning Line:

The No. 9 Cleaning Line is used to clean any oxidation or discoloration from the surface of the copper alloy strip or to remove oil from a coil. A coil is unwound and fed through sulfuric acid tanks, brushed with an aggressive nylon brush, then rinsed and dried before recoiling.

Emissions from the process are collected by exhaust hoods which are vented to a fume scrubber (FS-2).

Posit Bond Brushing Machines:

The posit bond brushing machine is used to clean the surface of copper and cupro-nickel strips and prepare the surface for bonding. The strips are individually fed through the machine where it is brushed in a detergent tank and rinsed. The detergent tank is continually overflowed to float out contaminates and filtered and recirculated. The strip passes through a drier oven and then through a series of wire brushed that "scratch" the surface to allow the strips to adhere better when bonded. A rotoclone system collects copper dust and detached brush wires from surface "scratching" operation.

Posit Bond Brush Cleaning:

This process is used to clean the brushes used on the Posit Bond Brushing Machines. The brushes are cleaned using a solvent. The solvent is poured into a tank and the lid closed. The brush spins in the solvent inside the closed tank. After spinning, the excess solvent is collected for disposal. The brush is then air-dried and returned to the brushing machine.

Hot Dip Tin Line:

The Hot Dip Tin Line consists of a flux tank (FT-1) followed by an electric dryer, a hot dip tin tank (HD-1), and an air cooler. About 25% of the production time, the hot dip tin tank is interchanged with a solder tank (ST-1) that is used for different applications of copper based alloy strip. The solder that is applied to the metal varies in composition from a mixture of 90% tin and 10% lead to a mixture of 60% tin and 40% lead. Fumes from the flux tank and the hot dip tin tank (or the solder tank) are controlled by passing them through a venturi fume scrubber (Heil scrubber (SCRUB-1)).

Limestone Silos:

The two (2) limestone silos with fabric filter dust collectors are part of Olin's Waste Water Treatment Facility (WWTF). Limestone is metered into the WWTF to control the pH of the wastewater.

A collector is installed on each silo and functions as bin vent filters to eliminate limestone dust emission during the pneumatic loading. The automatic continuous cleaning action of the collectors deposits the collected dust back into the silo.

The Limestone Silos are filled approximately every 10 days. The average amount added to the silos during filling process is approximately 40,000 lb. It takes approximately 2 hours to add the 40,000 lb.

No. 1 Rockwell Furnace:

Brass parts are placed into the annealing furnace and are annealed to part specifications. The brass parts are then cleaned using H_2SO_4 and water. The cleaned parts are rinsed off and dried. The annealing furnace is

normally natural gas fired (Mode 1), but may also be fired with a propane-air mixture (Mode 2) in the event of a natural gas supply curtailment.

4000# salem furnace

Brass parts are placed in a pre-wash tank prior to entering the furnace. The parts are annealed to part specifications. The brass parts are then cleaned using H_2SO_4 and water. The cleaned parts are rinsed off and dried. The annealing furnace is normally natural gas fired (Mode 1), but may also be fired with a propane-air mixture (Mode 2) in the event of a natural gas supply curtailment.

Bead Blaster:

The bead blaster consists of a bead blast cabinet for stress-relief of the mouth area of shellcases. Nine blasting guns discharge glass beads in the cabinet directed at the mouth area of the shell cases. After firing, the glass beads and glass dust are picked up in a closed ventilation system that passes through a cyclone separator. The separator recycles the glass bead back to the cabinet and discharges the glass bead dust into a baghouse which is located outside of the processing building. The baghouse efficiency is 99.97%.

Ballistic Sand Reclaim:

"Ballistic Sand" is the term used for the sand utilized at the end of firing ranges to stop bullet projectiles. When the sand becomes saturated with bullets and dust (due to erosion of sand and bullets upon impact), it is no longer an effective backstop. The Ballistic Sand Reclamation Unit has been designed to dry ballistic sand and separate lead clinkers and dust from the reusable sand.

Ballistic Sand will be loaded into the unit's material feed hopper and transferred to a rotary classifier (trommel) by screw conveyors. Interior vanes will tumble the sand as it travels to the front end of the trommel. At the same time, a propane-fired burner will dry the sand. Dust particles will be removed by a fan and captured in the baghouse.

As the sand reaches the front end of the unit, it will enter the outer shell of the trommel where the material flow will be reversed across a hooded screen. Reclaimed sand will drop out for eventual storage in a sand bunker for re-use. The larger projectile particles pass over the screen and are deposited in a separate container.

In order to reclaim the ballistic sand in both Zones 1 and 4, the unit is mounted on a flatbed trailer for transport between the two areas of the Main Plant facility.

Lead Shot Manufacturing:

Shot manufacturing is a process whereby pig lead is melted in three lead melt kettles (LK-1 to LK-3) on the seventh floor of the Shot Tower. Lead dross is skimmed from the kettles and collected in the dross collection barrels (DC-1 and DC-2). The solidified dross cake is then put into the dross cake melt pot (DM-1) and the recovered lead melt is then added to the lead shot manufacturing process.

Melted lead from the kettles and the dross cake melt pot is poured through a shot pan with holes drilled in the bottom. After the molten lead passes through the holes, it falls approximately 190 feet into a well containing about 10 feet of water. The shot is then taken from the well by a well chain and dumped into a water box on the second floor. The water box drains the water from the shot and adds graphite to it. The shot is then processed through three driers (D-1 to D-3) on the first floor. The shot is then transferred to the fourth floor where a shot distributor sends the shot to the glass top tables on the third floor where the unacceptable shot is separated from the acceptable shot. The acceptable shot goes through the shot polishers (P-1 to P-4) on the first floor and then into three of the six drier pots (DP-1 to DP-3) on the first floor. The acceptable shot is collected in containers and transferred to other production areas for further processing. The unacceptable shot goes directly to the other three drier pots (DP-4 to DP-6) on the first floor and then recycled back to the seventh floor for re-melting (see attached Shot Process Diagram).

Propane - The furnaces are normally natural gas fired, but may also be fired with a propane-air mixture in the event of a natural gas supply curtailment.

Emissions from the melt kettles, dross collection barrels, and the dross cake melt pot are controlled by a baghouse (STBH-1). Emissions from the Shot dryer (D-1 to D-3), Drier pots (DP-1 to DP-6) & polisher (P-1 to P-4) are controlled with a Rotoclone (RC-2).

Billet Melt Kettles:

Lead is melted in the Lower Billet Melt Kettle (LK-4). After the lead has been melted it is transferred to the Upper Billet Holding Kettle (LK-6) where it remains in it's molten stage. The molten lead is then transferred to the Billet Molding Station where lead billets are formed. The Lower Billet Melt Kettle (LK-4) has been divided into two modes of operation depending on the type of material being remelted. Mode 1 represents remelting of refined pigs or scrap lead generated on-site. Mode 2 represents remelting of scrap lead from offsite sources. Remelting of scrap lead received from offsite sources (Mode 2) generates higher particulate and lead emissions than Mode 1. Emissions from the Upper Billet Holding Kettle (LK-6) are expected to remain unchanged.

The addition of this second mode of operation to the Lower Melt Kettle (LK-4) involves no new construction. The equipment for the Lower Melt Kettle was in service prior to April 1972 and was in compliance with all applicable regulations at that time. The equipment has been permitted and is operating under Permit Application No. 76060066.

The billet casting furnaces are normally natural gas fired but may also be fired with a propane-air mixture in the event of a natural gas supply curtailment.

Extrusion Press Tumblers:

Lead billets are extruded into lead slugs. The lead slugs are tumbled against each other to remove sharp edges. Sharp edges typically complicate the final processing of the lead slugs.

Central Vacuum System:

The Central Vacuum System is used for maintenance related clean-up work at the Shot Manufacturing Facility. There are a total of 46 available vacuum pick-up points; however, 3 to 5 points are the most in use at any one time.

The vacuum system is used to "clean" work table surfaces and floor areas under the tables at the end of each shift.

Buckshot Tumbling System:

The Buckshot tumblers (T-1 & T-2) process is currently operated in an enclosed room. Due to OSHA operator exposure limits for lead, this operation is exhausted to the atmosphere.

The exhaust system consists of hooded enclosures over each tumbler and a Baghouse (TBH-2) to control emissions prior to discharge in the atmosphere.

Lead Pump Chip-Out:

The Lead pump chip-out (LPC-1) Exhaust System is an existing piece of equipment that was installed in October 1991. The Lead Pump Chip-Out Exhaust System is used to control emissions when routine maintenance is performed on lead pumps. The routine maintenance involves chipping off lead dross build-up from the lead pumps. An 8 inch diameter flexible hose is placed next to the pumps when the chipping process begins. As lead dross dust is created, the exhaust system pulls in the lead dross particulate and exhausts it to an existing Baghouse (TBH-2). This is the same baghouse used in the Buckshot Tumbling System.

Manurhin Powder Handling System:

Olin's Manurhin Powder Handling System consists of a pneumatic distribution system that transfers propellant powder from a powder distribution building to cyclone separator bins (CSB-1 to CSB-4) located at each of the loading machines. The system can transfer powder to only one loading machine at a time. Emissions from the cyclone separator bins are controlled by a single wet separator (WS-1) and Bag separator (BS-1).

Resin Handling System:

The Resin Handling System includes 3 Resin storage silo (SS-1 to SS-3) and two Use Bins. Emissions from Resin storage silos SS-1 and SS-3 are controlled with 2 bin filters (BF-1, BF-2). The Resin Handling System transfers and stores granular polyethylene and polyethylene resin pellets.

Wad Tumbling:

A wad is a paper cylinder that is the diameter of a shotgun shell and approximately 3/8" thick. It is ultimately used as a component of a shotgun shell. After manufacture from a paper slurry, a wad is fed into a loading hopper which discharges into a wad tumbling bin (WTB-1, 2, 3). The bin operates very similar to a domestic clothes dryer with a perforated rotating barrel. The wads enter the bin with rounded edges and a paper particle fuzz on their surface. The wads leave the bin with sharp edges and with the fuzz polished off by the tumbling action. From the bin the wads are packaged. A byproduct of the polishing is the paper particles removed from the wad. These particles are exhausted to a rotoclone (WR-1, 2, 3) prior to being released to the atmosphere inside the building. The wad tumbling operation consists of 3 identical hopper/bin/rotoclone arrangements.

Shot Shell Wad Puller System:

The Shot Shell Wad Puller System consists of mechanisms capable of removing a paper wad and a propellant powder charge from a partially assembled shot shell.

The System draws the propellant powder charge from the above mechanism and passes it first through a wet impingement scrubber (WPS-1) and then through a dry filter (WPF-1) before exhausting out of the building to the atmosphere.

MRF Rotary Destruct System:

The MRF Rotary Destruct System is used to insure that all primer mix has been detonated before scrap brass, steel, and aluminum leave the

Material Reclamation Facility. A furnace supplies indirect heat to the retort containing the scrap metal being processed. The heat causes detonation of the primer mix in the retort in order to insure that the scrap metal is safe to recycle.

The furnace and retort have separate emission points. The furnace is rated at 1 million BTU per hour and applies heat to the outside of the retort. Emissions from the retort are collected from the feed and discharge end of the retort and are ducted to a dust collection system. Makeup air is drawn into to the duct system in order to protect the cartridge air filters from excessive heat.

Olin Propellant Treatment Process (OPTP)

Scrap propellant will be treated using the OPTP. The propellant scrap is added to the OPTP reactor vessel where it is chemically treated in 800-gallon batches by hydrolysis. Chemicals used in the OPTP include caustic and sulfuric acid (for pH adjustment).

Stage I, II and III Hammermills:

Stage I Hammermill: Loaded centerfire & rimfire rounds, empty primed centerfire shells or scrap lead bullet ends are fed into a Hammer Mill which distorts or "chops" the shells to separate the bullet and primers from the shell thus allowing the powder to flow out. During the process, it is assumed that 10 percent of the powder in loaded rounds and 90 percent of the primer mix is ignited. A water spray is introduced continuously into the process to reduce the reactivity of powder and priming mix and to keep the material cool while in process. From the Hammer Mill the powder is screened from the scrap metal.

Stage II Hammermill: Empty primed shot shells or guillotined shotshells are "chopped" in the hammer Mill to separate the metal heads from the casings and primers from the heads. It is assumed that 90 percent of the primer mix is ignited in the mill. A water spray is introduced continuously into the process to reduce the reactivity of powder and priming mix and to keep the material cool while in process. Following the Hammer Mill, the smokeless powder and shot, if any, is separated from the paper, plastic and metals in a screen separator. Then

the paper and plastic is separated from the metals in a gravity separator as indicated on the flow diagram.

Stage III Hammermill: Empty primed rimfire shells, scrap shot shell and centerfire primers are fed into a Hammer Mill. The rimfire shells contain only primer mix. A caustic alkaline solution is continuously sprayed on the process to chemically kill the primer mix. This material arrives at the mill having been soaked in a caustic/water solution therefore ignition of the primers during milling rarely occurs. In the event ignition occurs, the operation is halted and that material is allowed to soak until the next time the mill is operated. It is assumed from the above reasoning that a maximum of 3% of the priming mix ignites.

Shotshell Cut-off Firing Machines

The shotshell cut-off firing machine is a process that involves cutting off the projectile of a shotgun shell and then firing the primer of the shell in order to capture the shells powder. A 2-stage filter controls particulate matter and lead emissions. This process leaves an empty un-primed shotshell.

7.1.2 List of Emission Units and Pollution Control Equipment

Description	Emission Control Equipment	Date Costructed
#1 D.C. Casting units (MF-11 to MF-15 & HF-3) *	Cyclone (MC-3), American air filter #2 Baghouse (BH-4)	Modified after 1972
#4 D.C. Casting units (MF-17 to MF-21 & HF-5) *		1973
Ascast furnace (ASC-1) *		1973
New Ascast furnace (ASC-2) *		1993
#2 D.C. Casting units (MF-1 to MF-5 & HF-1) *	Cyclone (MC-1), Wheelabrator #1 Baghouse (BH-1)	Modified after 1972
#3 D.C. Casting units (MF-6 to MF-10 & HF-2) *		Modified after 1972
#5 D.C. Casting units (MF-22 to MF-26 & HF-6) *	Cyclone (MC-2), Lear-Siegler #3 Baghouse (BH-	1976

	5)	
Wertli Caster (MF-16 & HF-4) *	Carborundum Baghouse (BH-3)	Modified after 1972 1982
Technica-Guss Caster (MF-27 & HF-7) *		
Aerofall Mill(AM-1, FSB-1,VF-1,FH-1)	Custom System Baghouse (BH-7)	1976
1F Mix Muller (MM-3), Low profile turbine mixer (LP-1)	Pangborn Baghouse (BH-2)	1983
2F Mix Muller (MM-1)	Rotoclone (RC-1)	1974
Hot Mill (HM-1)	-	1979
#2 Coil Miller (CM-2)	Skimmer (SK-1), Skimmer (SK-3), and Torit Cyclone Separator (MC-5)	1973
#3 Coil Miller (CM-3)	Baffled Settling Chamber (BSC-1), Skimmer (SK-2)	1985
Slab heating furnace (SF-2) **, 34.4 mmBtu/hr Natural gas fired	-	1979
Slab heating furnace (SF-1) **, 53 mmBtu/hr Natural gas fired	-	Prior 1972
Abrasive cleaner (ABRC-1)	Cyclone (ACCR-1) & Baghouse (ACBH-1)	1975
#35 Rolling/Bonding mill (RCM-3)	Stage filter (SFS-3)	1985
#35 Rolling/Bonding mill brushing unit (B-10)	Wet dust collector (WDC-1)	1985
#34 Rolling(RM-28) mill	Oil mist collector (OMC-28)	1988
Mill & Skive line (RM-25)	Cyclone, Drop box, Moisture separator (MS-1)	1986
Propane plant (V-1) and vaporizer flare (FL-1), 145 mmBtu/hr Propane gas fired	None	1992
Charcoal burners (CB-1 thru CB-12), each 1.04 mmBtu/hr Charcoal fired	None	Prior 1972
4 Stand tandem mill (TM-4)	Oil mist eliminator (OME-4)	1993
New tandem mill (RM-7)	Mist eliminator (FE-6)	1978

Old tandem mill (RM-1)		Prior 1972
Posit bond mill (BM-2)	Filter (F-1)	Prior 1972
Rolling mills #5 (RM-2) #6 (RM-9) #9 (RM-3) #18 (RM-4) #19 (RM-5) #20 (RM-6) #23 (RM-8) #24 (RM-24)	Mist Eliminator FE-1 FE-8 FE-2 FE-3 FE-4 FE-5 FE-7 OMC-24	 1972, Modified 1995
#13 Bell anneal(BA-13) **, 3.8 mmBtu/hr Natural gas fired		1993
Bell Anneal ** #7 (BA-7) #9 (BA-9) #11 (BA-11) #12 (BA-12) #31 (BA-31) #32 (BA-32)		 1972, Modified 1995 2000 2002 2002
Strip Anneal ** #3 (SA-3) #4 (SA-4) #5 (SA-5) #6 (SA-6) #7 (SA-7) #8 (SA-8)		 1971 1971 1971 1971 1976 1984
#9 Cleaning line	Fume Scrubber (FS-2)	1993
Posit bond brushing (BM-1)	Rotoclone (RC-1)	1981
Posit bond brushing (BM-2)		2002
Hot dip tin line	Heil scrubber (SCRUB-1)	1987
2 Limestone silos (S-1,S-2)	Filters (FF-1,FF-2)	Prior 1972
#1 Rockwell furnace (AF-2) **		Prior 1972
400# Salem furnace (AF-3C) **		Prior 1972
Bead blaster (BB-1)	Cyclone (CYC-1), Baghouse BBH-1	1995
Ballastic sand reclaim	Baghouse (SBH-1)	1991
3 Lead melt kettles (LK-1 to LK-3), Dross Collection Barrels (DC-1 and	Baghouse (STBH-1)	Prior 1972

DC-2) and Dross melt pot (DM-1) **		
Shot dryer (D-1 to D-3), Drier pots (DP-1 to DP-6) & polisher (P-1 to P-4)	Rotoclone (RC-2)	1976
Lower billet casting furnace (LK-4), Upper billet casting furnace (LK-6) **		Prior 1972
Extrusion press tumblers (EPT-1 to EPT-4)		1982
Central vacuum system (CVS-1)	Cyclone (CS-1), Bag seperator (BS-1)	1976
Buckshot tumblers (T-1 & T-2), Lead pump chip-out (LPC-1)	Baghouse (TBH-2)	1980
Manurhin powder handling system (CSB-1 to CSB-4)	Wet seperator (WS-1), Bag seperator (BS-1)	1980
Resin storage silo (SS-1 to SS-3)	Bin filters (BF-1, BF-2)	1985
Wad tumbling operation (Wh-1,2,3)	Rotoclone (WR-1,2,3)	Prior 1972
Shot shell Wad puller wet vacuum system (WP-1)	Scrubber (WPS-1), Bag filter (WPF-1)	1980
Rotary Destructor Furnace **	Baghouse w/Cartridge Air Filters	1978
Olin Propellant Treatment Process (OPTP)		2000
Stage I, II and III Hammermills		Modified 2003
Shotshell Cut-off Firing Machines	2-stage filter	2002

* Low frequency channel induction furnaces.
** Normally Natural gas firing. In the event of natural gas curtailment, fired with a natural gas equivalent propane air mixture.

7.1.3 Applicability Provisions and Applicable Regulations

a. An “affected process emission source” for the purpose of these unit-specific conditions is an emission unit described in conditions 7.1.1 and 7.1.2.

b. The affected process emission source is subject to 35 IAC 212.321(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (See Attachment 1 Emissions of Particulate Matter from New Process Emission Units) [35 IAC 212.321(a)].

c. The affected process emission source is subject to 35 IAC 212.322(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (See Attachment 2 Emissions of Particulate Matter from Existing Process Emission Units) [35 IAC 212.322(a)].

d. No person shall cause or allow the discharge of more than 3.6 kg/hr (8 lb/hr) of organic material into the atmosphere from an affected process emission source, except as provided in Sections 219.302, 219.303, 219.304 of this Part and the following exception: If no odor nuisance exists the limitation of this Subpart shall apply only to photochemically reactive material [35 IAC 219.301].

e. No person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission unit to exceed 2000 ppm [35 IAC 214.301].

f. The "affected electric furnaces" are subject to the NSPS for Secondary Brass and Bronze Ingot Production Plants, 40 CFR 60 Subparts A and M, because the plant commenced construction or modification after June11, 1973. The Illinois EPA administers the

NSPS for subject sources in Illinois pursuant to a delegation agreement with the USEPA. Pursuant to the NSPS:

At all times the Permittee shall also, to the extent practicable, maintain and operate these sources, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions.

Emissions of particulate matter from the furnace shall not exceed 10 percent opacity, (40 CFR 60.132).

7.1.4 Non-Applicability of Regulations of Concern

a. The affected process emission units are not subject to 35 IAC 217.121 for emissions of nitrogen oxides from new fuel combustion emission sources, because the actual heat input of each unit is less than 73.2 MW (250 mmBtu/hr) and the affected process emission source is not by definition a fuel combustion emission unit.

b. The affected process emission source units are not subject to 35 IAC 216.121, emissions of Carbon Monoxide from fuel combustion emission units, because affected process emission source is not by definition a fuel combustion emission unit.

c. The affected process emission source are not subject to 40 CFR Part 61, 'Subpart C: National Emission Standards for HAPs, Beryllium', because alloy in the process contains less than 5 percent beryllium by weight.

d. The affected lead melting emission units are not subject to 40 CFR 60 Subpart R - Standards of Performance for Primary Lead Smelters; 40 CFR 60 40 CFR 63 Subpart X - National Emission Standards For Hazardous Air Pollutants From Secondary Lead Smelting; and 40 CFR 63 Subpart TTT - National Emission Standards for Hazardous Air Pollutants for Primary Lead Smelting, because the lead melting emission units do not meet the applicability criteria for these regulations.

7.1.5 Operational and Production Limits and Work Practices

a. Alloy containing more than 5 percent beryllium by weight shall not be processed.

b. The Permittee shall operate and maintain each baghouse in a manner that assures compliance with the conditions of this section.

7.1.6 Emission Limitations

In addition to Conditions 5.2 2, 7.1.3 and the source-wide emission limitations in Condition 5.5, the sources listed below are subject to the following:

a. Casting plant (Permit #73032221):

i. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Throughput (Lb/Hour)	Particulate Matter Emissions (Lb/Hour)
#1 D.C.	20,300	8.76
#2 D.C.	40,400	12.64
#3 D.C.	25,300	9.85
#4 D.C.	40,400	12.64
#5 D.C.	40,400	12.64
Ascast	6,050	4.59
New Ascast	6,050	4.59
Wertli Melt Furnace*	N/A	N/A
Technica Guss Furnace	1,531	2.22
Hot Mill	210,000	6.09
#2 Coil Miller	150,000	21.9
#3 Coil Miller	262,000	34.31

* Note: The Wertli Melt Furnace will have casting capability removed and only be used as a priming furnace as indicated in the application.

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

ii. Emissions of particulate matter from Zone 17, by operation, shall not exceed the following limitations:

Operation	Particulate Matter Emissions Project Emissions (Tons/Year)	Annual Emissions (Tons/Year)
Casting Operation	----	52.00
Coil Milling Operation	1.30	12.20
Hot Rolling Operation	3.95	32.80
Totals:	5.25	97.00

These limits are based on information provided in the permit application. Compliance with this limit will be based on the emissions calculated in Condition 7.1.12, and determined from a running total of 12 months of data calculated monthly, as agreed to by the Permittee.

iii. Emissions of particulate matter shall not exceed 52.0 tons/year from the casting operations consisting of No. 1 through No. 5 D.C. casting units, Ascast furnace, new Ascast furnace, Wertli Melt Furnace, and Technica Guss casting unit. (Note: these are all existing casting emission units in Zone 17.) Compliance with this limit will be based on the emissions calculated in Condition 7.1.12, and determined from a running total of 12 months of data calculated monthly, as agreed to by the Permittee.

iv. Emissions of particulate matter from the Coil Milling Operations consisting of #2 and #3 coil millers shall not exceed 32.8 tons/year. Compliance with this limit will be based on the emissions calculated in Condition 7.1.12, and determined from a running total of 12 months of data

calculated monthly, as agreed to by the Permittee.

v. Emissions of particulate matter from the Hot Rolling Operations consisting of the hot mill shall not exceed 12.2 tons/year. Compliance with this limit will be based on the emissions calculated in Condition 7.1.12, and determined from a running total of 12 months of data calculated monthly, as agreed to by the Permittee.

vi. This permit is issued based on negligible emissions of particulate matter from low profile turbine mixer, knife grinding and coil milling process, #2 coil miller added vent, If mix muller and a space heater.

vii. The emissions of equipment and operation shall not exceed the following limits:

	Operating Hours	Volatile Organic Matter Emissions	
Emission Source	Hours/Year	Lbs/Hour	Tons/Year
Drip on Oil for 4-Stand Tandem Mill	8,400	0.96	4.00

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

This permit is issued based on negligible emissions of particulate matter from 4-stand tandem mill. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

viii. Emissions of particulate matter from ten new drying torches and Bell annealing shall not exceed 0.3 and 0.84 tons per year, respectively. This limit is based on the maximum emission rate (0.006) lb/hr for torches and 02.0 lb/hour for Bell annealing) and the maximum hours of

operation for each torch (8,400 hrs/yr) as indicated in the application.

ix. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Operating Hours Hours/Year	Nitrogen Oxides Lbs/Hour	Tons/Year
Ten Drying Torches	8,400	1.3	5.5
Bell Annealing	8,400	0.8	3.4

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

x. Emissions and operation of the Slug Melter equipment shall not exceed the following limits:

Operating Hours	576	Hour/Year
Firing Rate	12.0	mmBtu/Hr

Emissions	Lb/Hr	Ton/Yr
NO_x	1.68	0.48
CO	0.42	0.12

xi. Emissions and operation of the 12 charcoal burners shall not exceed the following limits:

Total Annual	750	Tons/Year

Throughput		
Firing Rate	0.48	Tons/Hr

Emissions	Lb/Hr	Ton/Yr
NO_x	0.18	0.14
CO	3.46	2.70
SO_2	0.04	0.03

These limits are based on the information provided in the permit application, as agreed to by the Permittee. Compliance with annual limits shall be determined from a running total of 12 months of data.

b. Slab Furnace Operations (Permit # 98090026):

i. Emissions and operation of equipment shall not exceed the following limits:

Item of Equipment	Natural Gas Usage $mmft^3$/Year	Nitrous Oxide Emissions Ton/Year
Slab Furnace Operations (SF-1, SF-2, SF-3)	655.2*	45.9

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

*Note: This limit is the existing natural gas fuel limit for the two existing slab furnaces (SF-1 & SF-2). SF-3 will not increase natural gas consumption or emissions over those previously permitted.

c. Bell Anneal Operations:

#30 Rolling Mill and Bell Anneal Projects Permit # 03020035:

i. Natural gas or a propane/air equivalent mix shall be the only fuels used by the affected bell anneal processes.

ii. The maximum firing rates, in total, of the #9 bell anneal and the #31B bell anneal shall not exceed 9.9 million Btu/hour, each.

iii. The maximum hourly process weights for No. 9 and 31B Bell anneals are 10 and 4.6 tons/hr respectively.i. This permit is issued based on negligible emissions of particulate matter from the affected shotshell cut-off firing machines. For this purpose emissions from all such sources shall not exceed nominal emission rates of 0.1 lb/hour and 0.1 tons/yr.

iv. Particulate matter, PM, emissions from the affected rolling mill and affected bell anneal processes shall not exceed the following limits:

Process	Lb/Hr	Tons/Mo	Tons/Yr
#30 Rolling Mill	7.56	0.11	1.09
#9 Bell Anneal	8.69	0.43	4.34
#31B Bell Anneal	5.73	0.20	1.99
Fuel Combustion	---	---	0.49
Other Associated Increases	---	---	0.74*
Total From All Bell Annealing Processes (BA-7, BA-9, BA-11, BA-12, BA-13, #31B)	---	1.5	14.55

* For informational purposes only.

These limits are based on the usage limits in this section, and information supplied in the permit application.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

d. Building 7 Tumbler System (Permit # 98120002):

This permit is issued based on negligible emissions of particulate matter from tumblers (TM-5, TM-6) and new collection system (CCS-1). For this purpose emissions from each emission source shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/yr.

e. MRF Rotary Destruct System with Baghouse (Permit # 97100026):

This permit is issued based on negligible emissions of particulate matter and lead from the MRF rotary destruct system with baghouse (RDRF-1). For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

f. Bismuth Shot Operation (Permit # 99090012):

This permit is issued based on negligible emissions of particulate matter from bismuth shot operation. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

g. Posit Bond Brushing Machine (BM-1) (Permit # 98120051):

Emission of particulate matter from the affected brushing machine (BM-1) shall not exceed 0.44 lb/hr and 1.85 tons/year. These limits are based on maximum material throughput (18,750 lb/hr and 78,750 tons/year), operating hours(8,400 hours/year), and overall reduction efficiency (93.0%). Compliance with annual limits shall be determined from a running total of 12 months of data.

Compliance with the particulate matter limitations in this section is assured and achieved by the proper operation and maintenance of the Rotoclone as required by this permit and the work practices inherent in operation of the affected brushing machine.

h. #2 Posit Bond Brushing Machine (Permit # 99070007):

This permit is issued based on negligible emissions of particulate matter from the posit bond brushing machine with drop out box and baghouse. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

i. Evaporating Lubricant-Stamping Operation (Permit #99030110):

Emissions of total VOM from the affected stamping operation (SO-1 to SO-11), as a whole, shall not exceed 14.0 tons per year and 2.65 tons per month, established at the request of the Permittee. These calculations are figured from number of gallons used multiplied by weight of VOM per gallon, assuming that 100% evaporation is VOM emissions. Compliance with annual limits shall be determined from a running total of 12 months of data.

j. Shotshell Cut-Off Firing Machines (SSCOFM-1, 2, 3) with 2-stage filter (2-SF) Permit # 02050092:

i. This permit is issued based on negligible emissions of particulate matter from the affected shotshell cut-off firing machines. For this purpose emissions from all such sources shall not exceed nominal emission rates of 0.1 lb/hour and 0.1 tons/yr.

ii. This permit is issued based on negligible emissions of lead from the affected shotshell cut-off firing machines. For this purpose emissions from all such sources shall not exceed nominal emission rates of 0.007 lb/hour and 0.007 tons/yr.

Compliance with the particulate matter limitations in this section is assured and achieved by the proper operation and maintenance of the filters as required by this section and the work-practices inherent in operation of the affected shotshell cut-off firing machines.

k. #29 Rolling Mill With Mist Eliminator
Permit # 01010072:

i. Annual throughput of metal rolled on #29 rolling mill shall not exceed 132,720 tons/year.

ii. Particulate matter emissions of #29 rolling mill shall not exceed 0.51 lb/hour and 2.14 tons/year. These limits are based on uncontrolled emission factor from similar unit at the source (3.22 lb/ton metal rolled) and control efficiency of mist eliminator (99%) as provided in the application.

iii. At all times the Permittee shall, to the extent practicable, maintain, and operate the mist eliminator, in a manner consistent with good air pollution control practice for minimizing emissions.

iv. This permit is issued based on negligible emissions of volatile organic material from #29 rolling mill. For this purpose, emissions shall not exceed nominal emission rates of 0.1 lb/hour and 0.44 ton/year.

l. Coil miller #2 with Skimmer (SK-1), Skimmer (SK-3) and Torit Cyclone Separator (MC-5)and Coil miller #3 with Baffled Settling Chamber (BSC-1), Skimmer (SK-2)
Permit # 00080019:

a. Maximum throughput for the coil miller #2: 150,000 pounds/hour.

b. Maximum throughput for the coil miller #3: 262,000 pounds/hour.

a. Emissions from the affected coil millers (combined) shall not exceed the following limits:

PM Emissions (Tons/Mo)	PM Emissions (Tons/Yr)
2.5	20.1

These limits are based on the maximum throughput, emission factors and the compliance procedures specified in Condition 7.1.12. Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

m. OPTP Reactor Vessel Permit # 00080073:

i. Maximum number of batches for the affected vessel: 31 batches/month and 250 batches/year.

ii. Maximum amount of propellant per batch: 350 lbs.

iii. Emissions from the affected vessel shall not exceed the following limits:

NO_x Emissions (Lbs/Hr)	NO_x Emissions (Tons/Yr)
11.6	1.5

These limits are based on the maximum number of batches, maximum amount of propellant per batch and the compliance procedures specified in Condition 7.1.12.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

n. MRF Hammermills stages 1, 2 and 3 Permit #03010028:

i. The affected Hammermills shall not exceed the following operational limits:

Affected Equipment Material Processed	Operating Hours	Throughput (Lbs/Hr)	Throughput (Tons/Year)
Stage 1 Hammermill: Ammunition Components	2,500 Annually	7,500	9,375
Stage 2 Hammermill: Scrap Metal, Smokeless Powder, Plastic and Paper	2,500 Annually	600	750
Stage 3 Hammermill: Distorted Primers and Distorted Empty Rim-Fire Shells	250 Per Calendar Quarter	1,600	2,000

ii. Emissions from the affected Hammermills shall not exceed the following limits:

	Equipment	Stage 1 Hammermill	Stage 2 Hammermill	Stage 3 Hammermill	Totals:
PM	Lb/Hr	0.00035	0.00072	0.62	
	Ton/Yr	0.00045	0.00089	0.08	0.0813

Pb	Lb/Hr	4.8×10^{-8}	9.56×10^{-8}	0.18	
	Ton/Yr	1.2×10^{-4}	2.39×10^{-4}	0.022	0.0224
CO	Lb/Hr	10.7	3.26	0.24	
	Ton/Yr	13.38	4.08	0.297	17.8

These limits are based on the throughput and annual operating hour limits in listed above and emission factors and limits (in the case of source total) as delineated in the permit application.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

The above limitations were established in the above referenced permits, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.1.7 Testing Requirements

Testing requirements are in the standard conditions of Section 8.

7.1.8 Monitoring Requirements

The Permittee shall monitor the differential pressure across each baghouse controlling an affected process emission source.

7.1.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the items required by Condition 7.1.6 for the affected process emission source to demonstrate compliance with

emission limits of the Conditions 5.5.1 and 7.1.6 pursuant to Section 39.5(7)(b) of the Act.

a. Casting plant operation:

i. % Zinc of Alloy for each alloy at the casting units (% Zinc).

ii. Tons of each material at each casting unit (tons/day).

iii. Hours of operation of each casting unit (hr/day).

iv. Tons of each alloy cast at the casting operations (ton/month).

v. PM and HAP emissions for each casting unit (lb/hr and ton/month) as calculated in Condition 7.1.12.

vi. PM and HAP emissions for the casting operations (ton/year) as calculated by summing the monthly emissions from each casting unit for each month and the preceding 11 months (running total).

vii. Tons of material coil milled at each coil milling unit (ton/day).

viii. Hours of operation of each coil milling unit (hr/day).

ix. PM and HAP emissions for each coil milling unit (lb/hr and ton/month) as calculated in Condition 7.1.12.

x. PM and HAP emissions for the coil milling operations (ton/year) as calculated by summing the monthly emissions from each coil milling unit for each month and the preceding 11 months (running total).

xi. Tons of material hot milled at the hot milling unit (ton/day).

xii. Hours of operation of the hot milling unit (hr/day).

xiii. PM and HAP emissions for hot milling unit (lb/hr and ton/month) as calculated in Condition 7.1.12.

xiv. PM and HAP emissions for the hot rolling operations (ton/year) as calculated by summing the monthly emissions from the hot milling unit for each month and the preceding 11 months (running total).

c. Bell Anneal Operations :

i. Process rate for each bell annealing operation (lb/hour);

ii. Calculated emission factor for each bell annealing operation (lb particulate/ton strip); and

iii. Particulate matter emissions (lb/hour and tons/year).

d. Evaporating Lubricant-Stamping Operation:

i. Records of the amount of evaporating lubricant in the affected stamping operation, ton/mo and ton/yr;

ii. The operating schedule of the affected stamping operation; and

iii. Records of monthly and annual aggregate VOM and HAP emissions from the affected stamping operation shall be maintained, based on number of gallons used and amount of VOM per gallon, with supporting calculations.

e. Posit Bond Brushing Machine (BM-1:

i. Records for periodic inspection of the Rotoclone with date, individual performing the inspection, and nature of inspection; and

ii. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.

iii. The operating schedule of the affected brushing machine; and

iv. The aggregate monthly and annual PM emissions from the affected brushing machine based on the operating schedule and the typical hourly emission rate, with supporting calculations.

f. Shotshell Cut-Off Firing Machines (SSCOFM-1, 2, 3) with 2-stage filter (2-SF):

i. Hours of operation for each affected shotshell cut-off firing machine (hours/month);

ii. Records for periodic inspection of the filter with date, individual performing the inspection, and nature of inspection; and

iii. Records of prompt repair of defects of filters, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.

g, #29 rolling mill with mist eliminator:

i. Tons of metal rolled on #29 rolling mill (tons/month and tons/year); and

ii. Particulate matter emissions.

iii. A maintenance log for the mist eliminator detailing all routine and non□routine maintenance performed including dates and duration of any outages.

h. Coil miller #2 and #3

i. Throughput for each Coil Miller (pounds/day and tons/month);

ii. Hours of operation of each coil miller (hours/day);

iii. PM emissions for the affected coil millers, combined (pounds/hour, tons/month and tons/year).

i. OPTP Reactor Vessel

i. Number of batches (batches/month and batches/year);

ii. Amount of propellant per batch (pounds); and

iii. NOx emissions for the affected vessel (tons/month and tons/year).

j. MRF Hammermills stages 1, 2 and 3

i. Material throughput (lb/hour and tons/year); and

ii. Emissions of: PM, CO and Pb in lb/hour and tons/year.

7.1.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section, of deviations of the affected process emission source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. If there is a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report within 30 days after the deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the deviation and efforts to reduce emissions and future occurrences.

7.1.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.1.12 Compliance Procedures

a. Compliance with the opacity limitations of Condition 5.2.2, the Permittee shall conduct a qualitative visible emissions observation once each day to observe for the presence of abnormal visible emissions.

If abnormal visible emissions are observed, the Permittee shall initiate corrective actions to eliminate the abnormal visible emissions. If the Permittee cannot eliminate the abnormal visible emissions within 24 hours, the Permittee shall conduct a Method 9 test within three days after the qualitative observation showing abnormal emissions.

b. Compliance with the emission limits in Condition 5.5.1 and 7.1.6(a) from the affected process emission source shall be based on the recordkeeping requirements in Condition 7.1.9 and the emission rates and formulas from July 20, 1993 and October 26, 1993 stack test data:

Particulate Matter (lb/hr) = 0.18 + (% Zinc in each Alloy Cast x Tons of each Alloy Cast/Tons of Alloy Cast for the month)/% Zinc in Allow 260) x 0.10 x (Tons of Alloy Cast for the month)

c. To determine compliance with Conditions 5.5.1, 7.1.6(a)(i) and 7.1.6(a)(ii0, particulate matter emissions from the coil milling operation shall be calculated based on the following from November 17, 1992 stack test data:

Particulate Matter #2 Coil Miller (lb/hr) = 0.292 x (Throughput rate/2000)

Particulate Matter #3 Coil Miller (lb/hr) = 0.121 x (Throughput rate/2000)

Particulate Matter #2 Coil Miller (lb/month) = 0.292 x (Tons of Material Coil Milled for the month)

Particulate Matter #3 Coil Miller (lb/hr) = 0.121 x (Tons of

Material Coil Milled for the month)

d. To determine compliance with Conditions 5.5.1 and 7.1.6(a)(ii), particulate matter emissions from the hot rolling operation shall be calculated based on the following from March 27, 1991 stack test data:

Particulate Matter Hot Mill (lb/hr) = 0.058 x (Throughput rate/2000)

Particulate Matter Hot Mill (lb/month) = 0.058 x (Tons of Material Hot Milled for the month)

e. To determine compliance with Conditions 5.5.1 and 7.1.6(c), PM emissions from the Bell Anneal Operations shall be calculated based on the following emission factors and formulas:

i. Bell Anneal BA-7, BA-9, and BA-12 = 0.099 lbs particulate emission per ton strip

ii. Bell Anneal BA-11 = 0.028 lbs particulate emission per ton strip

iii. Bell Anneal BA-13 = 0.020 lbs particulate emission per ton strip

Note these factors are developed based on the surface area per ton of strip multiplied by the rate of oil used per square feet.

f. To determine compliance with Conditions 5.5.1 and 7.1.6(m), NO_x emissions from the OPTP Reactor Vessel shall be calculated based on the following emission factors and formulas:

NO_x (Tons/Month) = (Lbs Propellant/Batch)(15 Grams NOx/Lbs Propellant*) (Number Batches/Month)/(454 Grams/Lbs) (2,000 Lbs/Ton)

* Based on the conversion of Nitrite ion to NO_x, 15 grams of NOx are generated per pound of propellant treated.

g. To determine compliance with Conditions 5.5.1 and 7.1.6(n), emissions from the affected Hammermills shall be calculated based on the following emission factors for each type of process material:

Pollutants	Stage I Hammermill	Stage II Hammermill	Stage III Hammermill
Particulate from Powder Burning Lb/Hr	0.02829	0.058	
Particulate from Priming Mix Burning[1] Lb/Hr	0.3005	0.6596	
Pb from Priming Mix Burning[1] Lb/Hr	0.087		
Particulate from Priming Mix Burning[2] Lb/Hr	0.4712		0.617
Pb from Priming Mix Burning[2] Lb/Hr	0.137		0.022
CO Lb/Ton (AP-42 Table 13.3-1 1/95)	77	77	77

h. To determine compliance with Conditions 5.5.1 and 7.1.6, emissions from the affected process emission units shall be calculated based on the following emission factors for each type of process emission unit:

Description	Emission Control Equipment	Emission Rate lbs/hr	Emission Factor
#1 D.C. Casting units (MF-11 to MF-15 & HF-3)			
#4 D.C. Casting units (MF-17 to MF-21 & HF-5)	Cyclone (MC-3), American air filter #2 Baghouse (BH-4)		PM 0.42 lb/T
Ascast furnace (ASC-1)			
New Ascast furnace (ASC-2)			
#2 D.C. Casting units (MF-1 to MF-5 & HF-1)	Cyclone (MC-1), Wheelabrator #1 Baghouse (BH-1)		PM 0.42 lb/T
#3 D.C. Casting units (MF-6 to MF-10 & HF-2)			
#5 D.C. Casting units (MF-22 to MF-26 & HF-6)	Cyclone (MC-2), Lear-Siegler #3 Baghouse (BH-5)		PM 0.42 lb/T
Wertli Caster (MF-16 & HF-4)	Carborundum Baghouse (BH-3)		PM 0.42 lb/T
Technica-Guss Caster (MF-27			

& HF-7)			
Aerofall Mill(AM-1, FSB-1,VF-1,FH-1)	Custom System Baghouse (BH-7)	1.0	
1F Mix Muller (MM-3), Low profile turbine mixer (LP-1)	Pangborn Baghouse (BH-2)	1.15	
2F Mix muller (MM-1)	Rotoclone RC-1)	0.46	
Hot Mill (HM-1)	-	4.86	
#2 Coil Miller (CM-2)	Skimmer (SK-1)	8.82	0.0292 T/T
#3 Coil Miller (CM-3)	Baffled Settling Chamber (BSC-1)	18.73	0.121 T/T
Slab heating furnace (SF-2)	-		!!!!
Slab heating furnace (SF-1)	-		!!!!
Abrasive cleaner (ABRC-1)	Zero Baghouse (ACBH-1)	0.024	
#13 Bell anneal (BA-13)		PM 0.714	!!!!
#35 Rolling/Bonding mill (RCM-3)	Stage filter (SFS-3)	PM 0.46+0.043=0.503	
#35 Rolling/Bonding mill brushing unit (B-10)	Wet dust collector (WDC-1)	PM 0.035	
#34 Rolling(RM-28) mill	Oil mist collector (OMC-28)	PM 0.16	
Mill & Skive line (RM-25)	Cyclone, Drop box, Moisture separator (MS-1)	0.005	
Propane plant (V-1) and vaporizer flare (FL-1)	None		lb/1000 gal PM 0.26 NO_x 12.40 SO_2 1.47 CO 3.10 VOM 0.25
Charcoal burners (CB-1 thru CB-12)	None		lb/Ton PM 8.80 Nox 00.68 SO2 0.15 CO 27.5 VOM 1.40

4 Stand tandem mill (TM-4)	Oil mist eliminator (OME-4)	0.27	
New tandem mill (RM-7)	Mist eliminator (FE-6)	0.030	
Old tandem mill (RM-1)		0.17	
Posit bond mill (BM-2)	Filter (F-1)	0.039	
Rolling mill #5 (RM-2) #6 (RM-9) #9 (RM-3) #18 (RM-4) #19 (RM-5) #20 (RM-6) #23 (RM-8) #24 (RM-24	Mist Eliminator FE-1 FE-8 FE-2 FE-3 FE-4 FE-5 FE-7 OMC-24	 0.028 0.34 0.34 0.48 0.74 0.078 0.63 0.41	
Bell Anneal #7 (BA-7) #9 (BA-9) #10 (BA-10) #11 (BA-11) #12 (BA-12) #13 (BA-13)		Mist emission 1.76 0.74 0.30 0.744 1.256	PM lb/T 0.099 0.099 0.028 0.099 0.020
Strip Anneal #3 (SA-3) #4 (SA-4) #5 (SA-5) #6 (SA-6) #7 (SA-7) #8 (SA-8)			lb/mmcf PM 52.2 Nox 368.7 SO2 2.5 CO 0.739 VOM 5.459
#9 Cleaning line	Scrubber (FS-2)	0.021	
Posit bond brushing (BM-1)	Rotoclone (RC-1)	0.29	
Hot dip tin line	Heil scrubber (SCRUB-1)	PM 0.017 Lead 0.0027	
2 Limestone silos (S-1,S-2)	Filters (FF-1,FF-2)	0.008	
#1 Rockwell furnace		!!!!	
400# Salem furnace(AF-3C)		!!!!	
Bead blaster (BB-1)		0.0015	
Ballastic sand reclaim	Baghouse (SBH-1)	5.56	

3 Lead melt kettles (LK-1 to LK-3)	Baghouse (STBH-1)	PM 0.024 Lead 0.008 combined	PM 0.03 lb/T Lead 0.01 lb/T
Lower billet casting furnace (LK-4)		PM 0.0026 Lead 0.0005	Test 1971
Upper billet casting furnace (LK-6)		PM 0.0002 Lead 0.00004	Test 1971
Extrusion press tumblers (EPT-1 to EPT-4)		PM 0.00075 combined	Estimate
Shot dryer (D-1 to D-3), Drier pots (DP-1 to DP-6) & polisher (P-1 to P-4)	Rotoclone (RC-2)	PM 0.051 Lead 0.0004 combined	Test 1995
Central vacuum system (CVS-1)	Cyclone (CS-1), Bag seperator (BS-1)	PM 0.0017 Lead 0.0017	Estimate
Buckshot tumblers (T-1 & T-2), Lead pump chip-out (LPC-1)	Baghouse (TBH-2)	PM 0.031 Lead 0.031	0.28 gr/cft
Manurhin powder handling system (CSB-1 to CSB-4)	Bin filters (BF-1, BF-2)	PM 0.000015	Estimate
Resin storage silo (SS-1 to SS-3)	Rotoclone (WR-1,2,3)	PM 0.094 combined	5 gr/cft
Wad tumbling operation (Wh-1,2,3)	Rotoclone (WR-1,2,3)	PM 0.24	Estimate
Shot shell Wad puller wet vacuum system (WP-1)	Scrubber (WPS-1), Bag filter (WPF-1)	PM 0.0008	Estimate
Destructor furnace (DF-1)		PM 0.666	lb/1000 gal PM 0.26 Nox 12.40 SO2 1.47 CO 3.10

			VOM 0.25
50 Caliber cappers capping sealant (50CA-1,50CA-2)	??	??	??
50 Caliber cappers mouth waterproofing (50CA-1,50CA-2)	??	??	??
50 Caliber loaders (LO-1,LO-2) Mode 1: Blank sealant	??	??	??
50 Caliber loaders (LO-1,LO-2) Mode 2: Tip identification	??	??	??
50 Caliber re-work line (RE-1)	??	??	??
50 Caliber primer sealing line (PS-7)	Filter	PM 0.0063	??
OPTP Reactor Vessel	--		

The emission rates are from the application.

Emissions (ton) = Emission Rates (lbs/hr) x Hours of Operation (hrs)/(2,000 lb/ton).

7.2 Unit 02: Coating operations

7.2.1 Description

The Winchester Division of the Olin manufactures ammunition components and assembles the components to make small arms ammunition.

VOM containing Sealants are used for waterproofing the primer used for ignition.

For power tool and blanks, the end of the shellcase is crimped and sealed with a color-coded lacquer for visual identification of the charge.

7.2.2 List of Emission Units and Pollution Control Equipment

Description	Emission Control Equipment	Date Constructed
50 Caliber cappers capping sealant (50CA-1,50CA-2)		1983
50 Caliber cappers mouth waterproofing (50CA-1,50CA-2)		1983
50 Caliber loaders (LO-1,LO-2) Mode 1: Blank sealant		1983
50 Caliber loaders (LO-1,LO-2) Mode 2: Tip identification		1983
50 Caliber re-work line (RE-1)		1983
50 Caliber primer sealing line (PS-7)		1983
5.56 Penetrator line, Tip identification (PE-1)	None	1984
5.56 SRTA Coating Operation (SRTA-1 & SRTA-2)	None	1991
Cappers-Sealant(CA-1 thru CA-41)	None	Prior 1972
Cappers-Mouth waterproofing(CA-1 thru CA-41)	None	Prior 1972
Mouth re-work line (MRE-1)	None	Prior 1972
Paper tube rollers-Glue (PR-1,PR-2 & PR-3)	None	Prior 1972

Power tool loading complexes (LC-2,LC-4,LC-5 & LC-6)	None	1979
Proof load line(PL-1 & PL-2)	None	Prior 1972
T-500 Blank Sealant line (BSL-1)	None	1984
T-500 mouth re-work (RE-2, RE-3 & RE-4)	None	Prior 1972
Manurhin Case Mouth Sealant Line (CSML-1)	None	1999

7.2.3 Applicability Provisions and Applicable Regulations

a. An "affected coating operation" for the purpose of these unit-specific conditions is an emission unit described in conditions 7.2.1 and 7.2.2.

b. Pursuant to 35 IAC 219.204, no owner or operator of a coating line shall apply at any time any coating in which the VOM content exceeds the following emission limitations for the specified coating. The following emission limitations are expressed in units of VOM per volume of coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied at each coating applicator, except where noted. Compounds which are specifically exempted from the definition of VOM should be treated as water for the purpose of calculating the "less water" part of the coating composition. The emission limitations are as follows:

i. Miscellaneous Metal Parts and Products Coating/Clear Coating [35 IAC 219.204(j)(1):

kg/l	lb/gal
0.40	4.3

ii. Miscellaneous Metal Parts and Products Coating/Extreme Performance Coating Air Dried [35 IAC 219.204(j)(2)(A)]:

kg/l	lb/gal
0.42	3.5

iii. Paper Coating [35 IAC 219.204(c)]:

kg/l	lb/gal
0.28	2.3

7.2.4 Non-Applicability of Regulations of Concern

a. No owner or operator of a coating operation subject to the limitations of 35 IAC 219.204 is required to meet the limitations of 35 IAC 219.301 or 219.302, Use of Organic Material, after the date by which the coating operation is required to meet 35 IAC 219.204 [35 IAC 219.209].

7.2.5 Operational and Production Limits and Work Practices

None

7.2.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected coating operations are subject to the following:

a. Zone 4 operations Permit #78010039:

i. The following conditions were established in permit 78010039 based on the Illinois Pollution Control Board Order PCB 94-17, dated February 17, 1994. All conditions of the above order are hereby incorporated by reference.

ii. In conjunction with the above-referenced order, the twenty (20) T-500 Cappers (CA-16 to CA-35), three (3) T -500 Re-Work Line (RE-2 to RE-4), T -500 Proof Load Lacquer Line (PL-2), T-500 Blank Sealant Line (BS-1), 5.56 Penetrator Line Tip Identification (PE-1), Ejection Cartridge Sealant Line (EC-1), and ten (10) T-257 Gauge and Weigh (GW-1 to GW-10) shall comply with 35 Ill. Adm. Code 219 Subpart F on or before May 14, 1997.

iii. Emissions of volatile organic material (VOM) and

operation of equipment shall not exceed the following limits:

Twenty (20) T-500 Cappers (CA-16 to CA-35)

Mouth Waterproofing

	Monthly	Annual	
Waterproofing Compound Usage	334.6	3777.5	gallons
Exempt OM Content	6.31	6.31	lb/gal
VOM Content	2.45	2.45	lb/gal
OM Emission	2111.3	18511.9	pounds
VOM Emission	819.8	8083.5	pounds

Three (3) T -500 Re-Work Lines (RE-2 to RE-4)

Mouth Waterproofing Operation

	Monthly	Annual	
Waterproofing Compound Usage	63.4	715.70	gallons
Exempt OM Content	4.06	4.06	lb/gal
VOM Content	2.45	2.45	lb/gal
OM Emission	256.7	2902.0	pounds
VOM Emission	156.2	1764.0	pounds

These limits are based on information provided in the permit application. Compliance with annual limits shall be determined on a running total of twelve (12) months of data.

iv. Pursuant to the above referenced order (i.e., PCB 94-17), emissions of volatile organic material (VOM) and operation of equipment during the compliance period indicated in the order (i.e., the period prior to May 14, 1997) shall not exceed the following limits:

Twenty (20) T-500 Cappers (CA-16 to CA-35)

Capping Sealant Operation

	Monthly	Annual	
Cap Lacquer Usage	98.0	1109	gallons
VOM Content	7.06	7.06	lb/gal

VOM Emission	691.9	7282.5	pounds

T -500 Proof Load Lacquer Line (PL-2)

Tip Identification

	Monthly	Annual	
Tip Identification Lacquer Usage	9.70	109.1	gallons
VOM Content	6.55	6.55	lb/gal
VOM Emission	63.5	714.6	pounds

T -500 Blank Sealing Line (BS-1)

Blank Sealing

	Monthly	Annual	
Blank Sealant Usage	8.6	97.1	gallons
VOM Content	6.42	6.42	lb/gal
VOM Emission	55.2	623.4	pounds

5.56 Penetrator Line (PE-1)

Tip Identification

	Monthly	Annual	
Tip Identification Lacquer	74.0	835.5	gallons
VOM Content	5.92	5.92	lb/gal
VOM Emission	438.2	4948.0	pounds

Ejection Cartridge Sealant Line (EC-1)

Cartridge Sealant

	Monthly	Annual	
Cartridge Sealant Usage	36.8	356.4	gallons
VOM Content	8.17	8.17	lb/gal
VOM Emission	300.6	2911.8	pounds

Ten (10) T-257 Gauge and Weigh (GW-1 to GW-10)

Final Sealant

	Monthly	Annual	
Final Sealant Usage	92.9	749.0	gallons
VOM Content	6.49	6.49	lb/gal

VOM Emission	602.9	4861.0	pounds

These limits are based on information provided in the permit application. VOM content limitations are based on the as applied VOM content indicated in the application. Compliance with annual limits shall be determined on a running total of twelve (12) months of data.

v. Emissions of particulate matter from the resin handling system shall not exceed 0.009 tons/year. This limit is based on the allowable emission limit at the maximum operating rate (0.12 lb./hour) and the maximum hours of operation (144 hours/year) indicated in the permit application.

vi. This permit is issued based upon a minimal hourly emission rate and negligible annual emissions (less than 0.1 ton/year) of organic material or nitrogen oxides (NO_x) from the new Reinfenhauser unit with flame treater.

vii. This permit is issued based upon 780 gallons of coating solution use containing 3.0 pounds of volatile organic material per gallon of coating solution applied as indicated in the application.

viii. This permit is issued based on negligible emissions of organic material and particulate matter from the kill sump water treatment process (T-242). For this purpose emissions of each contaminant shall not exceed nominal emission rates of 0.05 lb./hr and 0.22 ton/yr.

ix. Combined emissions of sulfuric acid and sulfur trioxide from the sulfuric acid storage tank (T-500) shall not exceed nominal emission rates of 0.1 lb./hour and 0.44 ton/year. These limits are based on the maximum hours of operation (8,760 hours per year) indicated in the application and the maximum hourly emission rate indicated in 35 Ill. Adm. Code Section 214.303(a).

x. This permit is issued based upon negligible emissions of particulate matter from the T-500 Pneum-A-Vac Powder

Handling System (PV-1) and Manurhin Powder Handling System. For this purpose emissions from each piece of equipment shall not exceed nominal rates of 0.1 pound per hour and 0.44 ton per year.

xi. Emissions of nitrogen oxides (NO_x) and operation of the spent acid storage tank (T-3) shall not exceed the following limits:

Hours of Operation (Hours/Year)	NO_x Emissions (Ton/Yr)	(Lb/Hour)
8,760	4.18	18.31

These limits are based on the information provided in the permit application. Compliance with annual limits shall be determined from a running total of 12 months of data.

xii. This permit is issued based on the plant being exempt from the requirements of 35 Ill. Adm. Code Part 219 Subpart TT, This exemption is based on the plant's maximum theoretical emissions of volatile organic material being less than 100 tons/per year. The Permittee shall notify the Illinois EPA and obtain appropriate permits from the Illinois EPA in advance of any change in operation which would result in a volatile organic material maximum theoretical emissions of 100 tons/per year or more.

b. Manurhin Case Mouth Sealant line Construction permit #99020096:

i. Emissions and operation of the affected coating line shall not exceed the following limits:

Item of Equipment	Volatile Organic Material Emissions (Ton/Mo)	(Ton/Yr)

CSML-1	0.5	2.94

These limits are based on representations of the actual emissions resulting from the typical hourly coating (0.20 gallons/hour) using coatings with the highest actual VOM content(3.5 pounds VOM/hour) at the facility's maximum of 8400 hours of operation. Compliance with annual limits shall be determined from a running total of 12 months of data.

ii. Emissions from clean-up shall not exceed nominal emission rates of 0.1 lb/hr and 0.44 tons/year.

These limits are based on representations of the maximum actual emissions resulting from the maximum hourly coating using coatings with the highest actual VOM content at the maximum hours of operation. Compliance with annual limits shall be determined from a running total of 12 months of data.

The above limitations were established in Permit 99020096, pursuant to 35 IAC Part 203. These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the 35 IAC Part 203. [T1].

7.2.7 Testing Requirements

Testing for VOM content of coatings and other materials shall be performed as follows [35 IAC 219.105(a), 219.211(a), and Section 39.5(7)(b) of the Act]:

a. On at least an annual basis:

i. The VOM content of representative coatings "as applied" on the affected coating operations shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 219.105(a).

ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 7.2.9(b) directly reflect the application of such material and separately account for any additions of solvent.

iii. Upon written request from the Permittee, the Illinois EPA may waive this requirement on a year-by-year basis, if prior testing shows a margin of compliance and no significant changes in coating supplies have occurred.

b. Upon reasonable request by the Illinois EPA, the VOM content of specific coatings and cleaning solvents used on the affected coating operations shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 219.105(a) [35 IAC 219.105(a) and 219.211(a)].

7.2.8 Monitoring Requirements

None

7.2.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected coating operations to demonstrate compliance with Conditions 5.5.1, 7.2.3, and 7.2.6 pursuant to Section 39.5(7)(b) of the Act:

a. Records of the testing of VOM content of coatings and cleaning solvents pursuant to Condition 7.2.7, which include the following [Section 39.5(7)(e) of the Act]:

i. Identification of material tested;

ii. Results of analysis;

iii. Documentation of analysis methodology; and

iv. Person performing analysis.

b. Pursuant to 35 IAC 219.211(c)(2), the Permittee shall collect and record all of the following information each day for the affected coating operations and maintain the information at the source for a period of three years:

i. The name and identification number of each coating as applied on each affected coating operation; and

ii. The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each affected coating operation.

c. Types of substrate material coated on the affected coating operations;

d. Records of the coating usage for the affected coating operations, gal/day and gal/yr;

e. The VOM content of coatings, % by Wt;

f. Density of coatings, lb/gal;

g. Records of the solvent usage for the affected coating operations, gal/day and gal/yr;

h. Density of solvent, lb/gal;

i. The aggregate monthly and annual VOM emissions from the affected coating operations based on the material usage, with supporting calculations; and

7.2.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected coating lines with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act.

Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. If there is a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report within 30 days after the deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the deviation and efforts to reduce emissions and future occurrences.

7.2.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.2.12 Compliance Procedures

Compliance with the emission limits of Conditions 5.5.1, 7.2.3, and 7.2.6 shall be based on the recordkeeping requirements in Condition 7.2.9 and formulas listed below:

VOM (lb) = (Coating Usage, gal) x (Coating Density, lb/gal) x (VOM Content of Coating, % by Wt.) + (Cleaning Solvent Usage, gal) x (Solvent Density, lb/gal)

7.3 Unit 03: Other emission units-Subpart TT sources

7.3.1 Description

These emission units emit VOM. Olin will comply with emission limits of Condition 7.3.6.

7.3.2 List of Emission Units and Pollution Control Equipment

Description	Emission Control Equipment	Date Constructed
Paper tube rollers-Oil/Solvent mixtures (PR-1,PR-2 & PR-3)	None	Prior 1972
108 Primer sealing line (PS-8)	None	1985
209 Battery cup sealing line (BC-1)	None	Prior 1972
50 Caliber primer sealing line (PS-7)	None	1983
Centerfire primer sealing line (PS-1 to PS-6)	None	Prior 1972
Ejection cartridge sealant line (EC-1)	None	Prior 1972
T-500 Tumblers (TM-1 to TM-3)	None	Prior 1972
No.4 Tumblers (TM-4)	None	Prior 1972
No.8 Strip anneal BTA in oil (BTA-1)	None	1984
Anti-Fretting applications (AFA-3,5,9,12,16 thru 21 &SL-30)	None	Prior 1972
Drip-On oil process (DOP-5,DOP-4)	None	Prior 1972
Posit bond brush cleaning (PBBC-1)	None	1973

7.3.3 Applicability Provisions and Applicable Regulations

a. An “affected other emission unit” for the purpose of these unit-specific conditions is an emission unit described in conditions 7.3.1 and 7.3.2.

b. Pursuant to Subpart TT: Other Emission Units; 35 IAC.219.980 (a)(2) the affected sources are limited to less than 100 tons of VOM emissions per calendar year in the absence of air pollution control equipment.

7.3.4 Non-Applicability of Regulations of Concern

a. The affected other emission units are not subject to control requirements specified in 35 IAC 219.986, because theoretical emissions of VOM are limited to less than 100 tons per calendar year by Condition 7.3.6.

7.3.5 Operational and Production Limits and Work Practices

The Permittee shall fulfill the Operational limitations and Work Practices specified in Condition 7.3.6.

7.3.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide emission limitations in Condition 5.5, the affected other emission units are subject to the following:

a. Emissions and operation of the affected other emission units shall not exceed the following limits:

i. Emissions and operation of equipment shall not exceed the following limits:

Sources and type of material used	Usage gal/yr	VOM Lb/gal	VOM Emissions T/yr
Paper tube rollers (PR-1,PR-2 & PR-3); Oil/Solvent mixture	2214.0	3.56	3.94
108 Primer sealing line (PS-8); Primer sealant	1398.3	7.09	4.96
209 Battery cup sealing line (BC-1); Primer sealant	1123.4	7.09	3.98
50 Caliber primer sealing line (PS-7); Primer sealant	3191.0	7.09	11.30
Centerfire primer sealing line (PS-1 to PS-6); Primer sealant	6310.1	7.09	22.38
Ejection cartridge sealant line (EC-1); Ejection cartridge sealant	356.4	3.92	0.863
T-500 Tumblers (TM-1 to TM-3); Solvent	6722.0	7.35	24.7

No.4 Tumblers (TM-4); Solvent	2241.0	7.35	8.234
No.8 Strip anneal BTA in oil (BTA-1); Oil	1210.0	2.15	1.30
10 Anti-Fretting applicators (AFA-3,5,9,12,16 thru 21); Lubricant	756.0	5.27	2.0
No.30L Slitter (SL-30): Lubricant	378.0	5.27	1.0
Drip-On oil process (DOP-5,DOP-4); Oil	107000.0	0.23	12.3
Posit bond brush cleaning (PBBC-1); Solvent	300.0	6.67	1.0

These limits are based on representations of the maximum emissions resulting from the maximum yearly material usage indicated in the permit application.

The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that limit the VOM emissions from the affected other emission units below the levels that would trigger the applicability of control requirements specified in 35 IAC 219.986, consistent with the information provided in the CAAPP application [T1N].

7.3.7 Testing Requirements

Testing for VOM content of coatings and other materials shall be performed as follows [35 IAC 219.105(a), 219.211(a), and Section 39.5(7)(b) of the Act]:

a. On at least an annual basis:

i. The VOM content of representative coatings "as applied" on the affected other emission units shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 219.105(a).

ii. This testing may be performed by the supplier of a material provided that the supplier provides appropriate documentation for such testing to the Permittee and the Permittee's records pursuant to Condition 7.3.9(b) directly reflect the application of such material and separately account for any additions of solvent.

iii. Upon written request from the Permittee, the Illinois EPA may waive this requirement on a year-by-year basis, if prior testing shows a margin of compliance and no significant changes in coating supplies have occurred.

b. Upon reasonable request by the Illinois EPA, the VOM content of specific coatings and cleaning solvents used on the affected other emission units shall be determined according to USEPA Reference Methods 24 and 24A of 40 CFR 60 Appendix A and the procedures of 35 IAC 219.105(a) [35 IAC 219.105(a) and 219.211(a)].

7.3.8 Monitoring Requirements

None

7.3.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected Other emission units to demonstrate compliance with Conditions 5.5.1, 7.3.3, and 7.3.6 pursuant to Section 39.5(7)(b) of the Act:

a. Records of the testing of VOM content of coatings and cleaning solvents pursuant to Condition 7.3.7, which include the following [Section 39.5(7)(e) of the Act]:

i. Identification of material tested;

ii. Results of analysis;

iii. Documentation of analysis methodology; and

iv. Person performing analysis.

b. Pursuant to 35 IAC 219.211(c)(2), the Permittee shall collect and record all of the following information each day for the affected other emission units and maintain the information at the source for a period of three years:

i. The name and identification number of each coating as applied on each affected other emission units; and

ii. The weight of VOM per volume of each coating (minus water and any compounds which are specifically exempted from the definition of VOM) as applied each day on each affected other emission units.

c. Types of substrate material coated on the affected coa other emission units;

d. Records of the coating usage for the affected other emission units, gal/day and gal/yr;

e. The VOM and HAP content of coatings, % by Wt;

f. Density of coatings, lb/gal;

g. Records of the solvent usage for the affected other emission units, gal/day and gal/yr;

h. Density of solvent, lb/gal;

i. The aggregate monthly and annual VOM and HAP emissions from the affected other emission units based on the material usage, with supporting calculations; and

7.3.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected other emission units with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. If there is a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report within 30 days after the deviation. The report shall include the emissions released in accordance with the

recordkeeping requirements, a copy of the relevant records, and a description of the deviation and efforts to reduce emissions and future occurrences.

7.3.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.3.12 Compliance Procedures

Compliance with the emission limits of Conditions 5.5.1, 7.3.3, and 7.3.6 shall be based on the recordkeeping requirements in Condition 7.3.9 and formulas listed below:

VOM (lb) = (Coating Usage, gal) x (Coating Density, lb/gal) x (VOM Content of Coating, % by Wt.) + (Cleaning Solvent Usage, gal) x (Solvent Density, lb/gal)

7.4 Unit 04: Package boilers

7.4.1 Description

The facility operates six package Cleaver Brooks boilers (B-1 thru B-6) to generate steam, which is used for process heating and space heating purposes. The boilers B-1 to B-6 were constructed in year 1982 while the boiler B-6 was added in year 1995. Natural gas is the primary fuel with #2 fuel oil or propane gas air-mixture used as back-ups.

7.4.2 List of emission equipment and pollution control equipment

Boiler Identification	Maximum Heat Input mmBtu/hr/unit	Date Constructed
Cleaver Brooks boilers (B-1 thru B-6)	32.66	B-1 thru B-5 in 1982, B-6 in 1995

7.4.3 Applicable Regulations

a. The "affected boiler" for the purpose of these unit-specific conditions is an emission unit described in conditions 7.4.1 and 7.4.2.

b. An affected boiler B-6 (Added in 1995) for the purpose of these unit specific conditions is a steam generating unit that is fired with natural gas (with distillate fuel backup), with a maximum heat input capacity of 100 mmbtu/hr or less, but greater than or equal to 10 mmbtu/hr, and constructed, modified or reconstructed after June 9, 1989. As a consequence, the affected boiler BA-6 is subject to the Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60 Subpart Dc because the boiler was constructed after June 9, 1989 and the firing rates of the affected boiler is less than 100 mmbtu/hr and greater than 10 mmbtu/hr.

c. i. The emissions of particulate matter (PM) into the atmosphere in any one hour period shall not exceed 0.15 kg/MW-hr (0.10 lb/mmBtu) of actual heat input from any

fuel combustion emission unit (affected boiler) using liquid fuel exclusively [35 IAC 212.206].

ii. The emission of carbon monoxide (CO) into the atmosphere from any affected boiler with actual heat input greater than 2.9 MW (10 mmBtu/hr) shall not exceed 200 ppm, corrected to 50 percent excess air. [35 IAC 216.121]

iii. A. The emission of sulfur dioxide (SO_2) into the atmosphere in any one hour period from any affected boiler burning liquid fuel exclusively shall not exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lb/mmBtu) [35 IAC 214.161(b)].

B. Pursuant to the New Source Performance Standard, the emission of sulfur dioxide (SO_2) into the atmosphere in any one hour period from an affected boiler B-6 burning liquid fuel exclusively shall not exceed 215 ng/J of actual heat input when distillate fuel oil is burned (0.5 lb/mmBtu); as an alternative the Permittee shall not combust oil in affected boilers that contains greater than 0.5 weight percent sulfur. All limits shall be based on a 30-day rolling average. [40 CFR 60.42c(d) and (g)]

iv. A. Pursuant to the New Source Performance Standard, the emission of gases into the atmosphere from an affected boiler B-6, except during periods of startup, malfunction and shutdown, shall not exhibit an opacity greater than 20 percent (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [40 CFR 60.43c(c) and (d)]

B. Each affected boiler is also subject to the opacity limits identified in Condition 5.2.2(b).

7.4.4 Non-Applicability of Regulations of Concern

a. The affected boiler is not subject to 35 IAC 217.141, because the actual heat input of the affected boiler is less than 73.2 MW (250 MBtu/hr).

b. Pursuant to 35 IAC 218.303, fuel combustion emission units are not subject to 35 IAC 218.301, "Use of Organic Material".

c. There are no applicable requirements for particulate matter or sulfur dioxide for the affected boilers while firing natural gas.

7.4.5 Operational and Production Limits and Work Practices

The Permittee shall fulfill the Operational limitations and Work Practices specified in Condition 7.4.6.

7.4.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected boilers are subject to the following:

a. Natural gas and/or No. 2 fuel Oil shall be the only fuel(s) combusted in the above referenced boiler(s) subject to the following limitations.

b. Annual fuel consumption for the six (6) package boilers (B-1 through B-6) is limited to 800 million cubic feet of natural gas. Up to 1,200,000 gallons of No. 2 fuel oil may be used to replace up to 168 million cubic feet of natural gas at a ratio of 7,138.46 gallons of No. 2 fuel oil per one (1) million cubic feet of natural gas.

c. The Permittee shall not utilize distillate fuel oil (Grades No. 1 and 2) in the boiler(s) with a sulfur content greater than the larger of the following values, pursuant to 35 Ill. Adm. Code 214.

i. 0.28 weight percent, or

ii. The wt. percent given by the following formula: Maximum Wt. Percent Sulfur = (0.000015) x (Gross Heating Value of the Oil, Btu/Lb.).

d. Emissions of particulate matter (TSP), nitrogen oxide (NO_x), volatile organic material (OM), carbon monoxide (CO) and sulfur dioxide (SO_2) and operation of the six (6) package boilers shall not exceed the following limits:

Emissions from Natural Gas:

	Million Ft^3/yr	Million Ft^3/mo
Firing Rate	800	150

	Emission Factors (Lb.\$10^{-6}$ Ft^3)	Annual Maximum	Monthly
OM	5.5	2.20	0.42
PM	7.6	3.04	0.57
NO_x	100	40.00	7.50
CO	84	33.60	6.30
SO_2	0.6	0.24	0.05

* Up to 1,200,000 gallons of No. 2 fuel oil may be used to replace up to 168 million cubic feet of natural gas.

Emissions from No. 2 Fuel Oil in addition to 600 million cubic feet of natural gas firing above:

	Gallons/yr	Gallons/mo
Firing Rate	1,200,000	464,000
Percent Sulfur Content	0.28	0.28

	Emission Factors (lb\1000 GAL)	Tons/yr	Tom/mo
OM	0.25	0.15	0.06
PM	2	1.20	0.46
NO_x	20	12.00	4.64
CO	5	3.00	1.16
SO_2	39.8	23.88	9.23

These limits are based on standard emission factors and procedures and the fuel(s), maximum firing rates, and maximum hours of operation indicated in the application. SO_2 limits are based on compliance with 35 Ill. Adm. Code 214.122(b)(2), which is more stringent than the NSPS.

Compliance with annual limits shall be determined from a running total of 12 months of data.

The above limitations were established in Permit 85100062, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.4.7 Testing Requirements

Testing requirements are found in the standard condition of Section 8.

7.4.8 Monitoring Requirements

Monitoring requirements are found in Condition 7.4.6.

7.4.9 Recordkeeping Requirements

The Permittee shall maintain records to demonstrate compliance with Conditions 5.5.1, 5.5.3 and 7.4.6 pursuant to Section 39.5(7)(b) of the Act.

a. The Permittee is required to compile monthly records of the following items, and such other items as may be appropriate to allow the Agency to review compliance with the limits in Condition 1 through 3:

i. Monthly fuel usage,

ii. Annual fuel usage for the preceding calendar year (i.e., preceding 12 months),

iii. Monthly emissions of criteria pollutants, and

iv. Annual emissions of criteria pollutants for the preceding calendar year (i.e., preceding 12 months).

b. The Permittee shall comply with the recordkeeping requirements of the NSPS (40 CFR 60 Subpart Dc—Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units) as applicable to affected boiler B-6.

7.4.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance with applicable control and operating requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act:

a. Notification within 60 days of operation of an affected boiler that may not have been in compliance with the opacity limitations in Condition 5.5.2(b) only or Conditions 5.5.2(b) and 7.4.3(b)(iv)(A), with a copy of such record for each incident.

b. If there is an exceedance of sulfur content of distillate fuel oil in excess of the limit specified in Condition 7.4.6, the Permittee shall submit a report within 30 days after receipt of a noncompliant shipment of distillate fuel oil.

c. The Permittee shall submit a quarterly report, which shall include, in addition to the fuel supplier certification required in Condition 7.4.9(a)(iv), a certified statement signed by the Permittee that the records of fuel supplier certifications submitted represent all of the fuel consumed during the quarter. [40 CFR 60.48c(e)(11)]

d. Emissions of NO_x, PM, SO_2, or VOM from the affected boilers in excess of the limits specified in Condition 5.5.1 based on the current month's records plus the preceding 11 months within 30 days of such an occurrence.

e. The Permittee shall comply with the reporting requirements of the NSPS (40 CFR 60 Subpart Dc—Standards of Performance for Small Industrial- Commercial-Institutional Steam Generating Units) as applicable to affected boiler B-6.

7.4.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.4.12 Compliance Procedures

a. Compliance with Condition 7.4.3(b)(ii) is demonstrated under inherent operating conditions of an affected boiler, so that no compliance procedures are set in this permit addressing this requirement.

b. Compliance with Condition 7.4.3(b)(iii) is demonstrated under inherent operating conditions of affected boilers fired by distillate oil with a sulfur content meeting the specification of Condition 7.4.5(b), so that no compliance procedures are set in this permit addressing this regulation.

c. Compliance with the emission limits in Conditions 5.5.1 and 5.5.3 shall be based on the recordkeeping requirements in Condition 7.4.9 and the emission factors and formulas listed below:

i. Emissions from the boilers burning natural gas shall be calculated based on the emission factors listed in the condition 7.4.6.

Boiler Emissions (ton) = natural gas consumed multiplied by the appropriate emission factor/2000.

ii. Emissions from the affected boilers burning distillate fuel oil shall be calculated based on the emission factors listed in the condition 7.4.6.

Boiler Emissions (ton) = distillate fuel oil consumed (gallons) multiplied by the appropriate emission factor/2000.

iii. Total emissions for each pollutant are to be determined by combining the results of Conditions 7.4.12(i) and (ii) for all affected boilers.

7.5 Unit 05: Hot water heaters

7.5.1 Description

2 Hot water heaters (#1 & #2) are fired with natural gas. Olin's Brass Fabricating Operations requires water heated to approximately 190° Fahrenheit. The process of heating the water consists of filling the heater with water at ambient temperatures. The water is heated using a natural gas fired water heater. The heated water is then piped to various cleaning processes throughout the Brass Fabricating Operations.

The fuel normally used by this piece of equipment is natural gas (Mode 1) from one or more natural gas pipelines. However, in the event of a natural gas curtailment, Olin may supplement or replace the natural gas with a propane-air mixture (Mode 2).

The facility also operates Zone 4 boiler fired with propane to supply steam to various processes in Zone 4.

7.5.2 List of emission equipment and pollution control equipment

Boiler Identification	Maximum Heat Input mmBtu/hr	Date Constructed
Hot water heater #1	5.0	1981
Hot water heater #2	9.98	1994
Zone 4 boiler	2.51	1985

7.5.3 Applicable Regulations

a. The "affected hot water heater" for the purpose of these unit-specific conditions is an emission unit described in conditions 7.5.1 and 7.5.2.

7.5.4 Non-Applicability of Regulations of Concern

a. The New Source Performance Standard for Small - Industrial - Commercial - Institutional Steam Generating Units, 40 CFR 60, Subpart Dc, applies to units with design heat input capacity of 10 to

100 mmBtu/hr. These heaters are <10 mmBtu/hr, therefore, these rules do not apply.

b. Pursuant to 35 IAC 218.303, fuel combustion emission units are not subject to 35 IAC 218.301, "Use of Organic Material".

c. The affected hot water heater is not subject to the requirements of 35 IAC 216.121 or 35 IAC 217.141 because the actual heat input of each of the affected boilers is less than 10 mmBtu/hr.

7.5.5 Operational and Production Limits and Work Practices

a. Natural gas shall be the only fuel burned in the affected hot water heater.

b. Zone 4 boiler shall be the only fuel burned in the affected hot water heater.

7.5.6 Emission Limitations

In addition to Condition 5.2.2 and the source wide limitations in Condition 5.5, the affected hot water heater is subject to the following:

a. Water Heater HH-2 emissions are limited to natural gas or other gaseous fuel combustion emissions. The maximum firing rate is not to exceed 10 mmBtu's per hour.

c. This permit is issued based upon a minimal hourly emission rate and negligible annual emissions (less than 0.1 ton/year) of nitrogen oxides from the colt dryer.

b. Maximum HH-2 heater emissions are as follows:

Pollutant	Lbs/Hour	Tons/Year
TSP	0.05	0.25
SO_x	0.01	0.03
NO_x	1.40	6.13
CO	0.35	1.53
VOM	0.06	0.25

These limits are based on the standard emission factors and emission calculation procedures.

Compliance with annual limits shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total) [T1]

The above limitations were established in Permit 78010031, pursuant to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). These limits ensure that the construction and/or modification addressed in the aforementioned permit does not constitute a new major source or major modification pursuant to Title I of the CAA, specifically the federal rules for Prevention of Significant Deterioration (PSD), 40 CFR 52.21 [T1].

7.5.7 Testing Requirements

None

7.5.8 Monitoring Requirements

None

7.5.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items which allow demonstration of compliance with Condition 5.5.1 and 7.5.5 pursuant to Section 39.5 (7) (b) of the Act:

a. Total natural gas usage for the heaters (mmcf/yr)

b. Annual aggregate NO_x, PM and VOM emissions from the heaters, based on fuel consumption and the applicable emission factors, with supporting calculations.

7.5.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected hot water heater with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. If there is a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report within 30 days after the deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the deviation and efforts to reduce emissions and future occurrences.

7.5.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.5.12 Compliance Procedures

a. Compliance with the emission limits in condition 5.5 shall be based on the recordkeeping requirements in Condition 7.5.9 and the emission factors and formulas listed below:

Pollutant	Emission Factor ($lb/10^6$ ft^3)
NO_x	100.0
PM	7.6
VOM	5.5
SO_2	0.6

These are the emission factors for uncontrolled natural gas combustion in boilers (<100 mmBtu/hr), Tables 1.4.1 and 1.4.2, AP-42, Volume I, Supplement D, March, 1998.

Emissions (ton) = Natural Gas Consumed Multiplied by the Appropriate Emission Factor/2000.

7.6 Unit 06: Chrome Plating Line

7.6.1 Description

The chrome plating facility, located in Olin's Main Plant Machine Shop, is used to plate steel parts with a protective chrome coating. The process is a batch-type in which the parts are first submerged in a stripping tank and then a cleaning tank where both tanks contain a hot water and sodium hydroxide solution. The parts are then rinsed in cold water and later activated in a surface activating tank containing 10% sulfuric acid. After the surface activation tank, the parts are then warmed in a hot water rinse tank prior to the actual chrome plating process.

The chrome plating process contains an electroplating system in which a small current passes through the tanks to actually plate the chrome onto the parts. There are four rectifiers which serve three chrome plating tanks in the facility. There is one rectifier each for Chrome Plating Tanks PT-1 and PT-2 and two rectifiers for Tank PT-3. Emissions from each of the plating tanks as well as the Strip Tank and the Clean Tank are all combined and are processed through the Chrome Plating Mist Eliminator.

7.6.2 List of Emission Units and Pollution Control Method

Description	Emission Control Equipment	Date Constructed
Chrome Plating Line (PT-1, PT-2 & PT-3)	Mist eliminator (ME-1)	Nov. 1982

7.6.3 Applicable Regulations

a. The "affected chrome plating line" for the purpose of these unit specific conditions, is each piece of equipment as listed in condition 7.6.2.

b. Chrome plating emission units are subject to 40 CFR Parts 9 and 63, National Emission Standards For Chromium Emissions From Hard And Decorative Chromium Electroplating And Chromium Anodizing Tanks.

c. Each affected chrome plating line at the source is subject to 35 IAC 212.321(a), which requires that:

i. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 (see also Attachment 1) [35 IAC 212.321(a)].

7.6.4 Non-Applicability of Regulations of Concern

None

7.6.5 Operational and Work Practices

a. The operation and work practices required by 40 CFR 63.342(f) shall be implemented for control systems used on hard chrome electroplating tanks, including:

i. A quarterly visual inspection of the fiber bed mist eliminator unit and prefiltering device to ensure there is proper drainage, no chromic acid buildup in the units, and no evidence of chemical attack on the structural integrity of the devices.

ii. A quarterly visual inspection of the ductwork from the tank(s) to the fiber bed mist eliminator(s) to ensure there are no leaks.

iii. Perform washdown of the fiber elements in accordance with manufacturer's recommendations.

b. Pursuant to 40 CFR 63.342(f)(3), the Permittee shall implement an operation and maintenance (O & M) Plan.

i. Description of the operation and maintenance criteria for the control device and monitoring equipment.

ii. A checklist to document the operation and maintenance of the equipment.

iii. Required work practice standards, pursuant to 40 CFR 63.342(f).

iv. Procedure to follow to ensure that equipment or process malfunctions due to poor maintenance or other preventable conditions do not occur.

v. Procedure for identifying malfunctions and for implementing corrective actions.

7.6.6 Emission Limitations

In addition to Condition 5.2.2 and the source-wide emission limitations in Condition 5.5, the affected chrome plating line is subject to the following:

a. Chromium emissions from the existing small hard chrome electroplating tank(s) shall not exceed 0.03 mg/dscm pursuant to 40 CFR 63.342(c)(1).

This limit is National Emission standards for chromium emissions from hard chromium electroplating tanks, 40 CFR Part 63, Subpart N and is based on the maximum cumulative potential rectifier capacity of the hard chrome electroplating tanks being less than 60 million ampere-hors per year. Compliance with this limit shall be determined from initial performance testing and ongoing compliance monitoring requirements, as required by conditions of this permit.

Emission limits for PM is not set for the affected chrome plating line as potential to emit in the absence of permit limit is less than the significant and major source thresholds for the pollutant

pursuant to Title I of the CAA, specifically 40 CFR 52.21, Prevention of Significant Deterioration (PSD).

7.6.7 Testing Requirements

Testing requirements are found in the standard condition of Section 8.

7.6.8 Monitoring Requirements

Records of monitoring data required by 40 CFR 63.343(c):

a. Pressure drop across the fiber bed mist eliminator, determined daily.

b. Pressure drop across the prefiltering device located upstream of the fiber bed mist eliminator that prevents plugging, determined daily.

7.6.9 Record keeping Requirements

The Permittee shall maintain records of the following items for chrome plating lines to demonstrate compliance with Condition 5.5.1, pursuant to Section 39.5(7)(b) of the Act:

b. Inspection records for the control device and monitoring equipment, to document that the inspection and maintenance required by the work practice standards of 40 CFR 63.342(f) have taken place. The record can take the form of a checklist and should identify the device inspected, the date of inspection, a brief description of the working condition of the device during the inspection, and any actions taken to correct deficiencies found during the inspection.

c. Records of all maintenance performed on the hard chrome electroplating tanks, as related to emissions, the associated control system, and monitoring equipment.

d. Records of the occurrence, duration, and cause (if known) of each malfunction of the hard chrome electroplating process, associated control system, and monitoring equipment.

e. Records of actions taken during periods of malfunction when such actions are inconsistent with the operation and maintenance plan required by 40 CFR 63.342(f)(3), pursuant to 40 CFR 63.342(f)(3)(iv).

f. Records, which may take the form of checklists, necessary to demonstrate consistency with the provisions of the operation and maintenance plan required by 40 CFR 63.342(f)(3).

g. Copies of test reports documenting results of all performance tests and all measurements as may be necessary to determine the conditions of performance tests, including measurements necessary to determine compliance with the special compliance procedures of 40 CFR 63.344(e).

h. Records of monitoring data required by 40 CFR 63.343(c) that are used to demonstrate compliance with the standard including the date and time the data are collected.

i. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data. Records of excess emissions that occurs during malfunction of the process, control, or monitoring equipment.

j. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions, as indicated by monitoring data. Records of excess emissions that occur during periods other than malfunction of the hard chrome electroplating tanks and associated control device or monitoring equipment.

k. Records for the total process operating time of the hard chrome electroplating tank(s) during the reporting period.

l. Records demonstrating the maximum cumulative potential rectifier capacity, if hard chrome electroplating is less than 60 million ampere-hours per year, or of the actual cumulative rectifier capacity of hard chromium electroplating tank(s) at a facility expended during each month and the total capacity expended semiannually.

m. Copies of the notifications and reports required by 40 CFR Parts 63.9, 63.10, and 63.347, with supporting documentation.

n. All records shall be retained for a period of five years, pursuant to 40 CFR 63.10(b)(1).

7.6.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected coating lines with the permit requirements as follows pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. If there is a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report within 30 days after the deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the deviation and efforts to reduce emissions and future occurrences.

7.6.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical and operational change with respect to the affected chrome plating operation without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

None

7.6.12 Compliance Procedures

The testing, monitoring, recordkeeping and reporting requirements of section 7.6 shall be used to determine compliance.

7.7 Unit 07: Gasoline Dispensing Storage Tanks

7.7.1 Description

The gasoline storage tanks are used to dispense gasoline to general plant vehicles.

7.7.2 List of Emission Equipment and Pollution Control Equipment

Description	Emission Control	Date Constructed
Zone 17 Gasoline Storage Tank (AST-16), 560 Gallons	Submerged Loading	1961
Zone 3 Gasoline Storage Tank (AST-5), 500 Gallons	Submerged Loading	1992
Zone 4 Gasoline Storage Tank (GT-4), 10,000 Gallons	Submerged Loading	1984
Zone 7 Gasoline Storage Tank (AST-2), 500 Gallons	Submerged Loading	1993

7.7.3 Applicability Provisions

a. The "affected storage tank", for the purpose of these unit-specific conditions is an emission unit described in conditions 7.7.1 and 7.7.2.

b. No person shall cause or allow the loading of any organic material in any stationary tank having a storage capacity of greater than 946 liter (250 gallon), unless such tank is equipped with a permanent submerged loading pipe [35 IAC 219.122(b)]. Except as provided in the following exemptions: If the tank is a pressure tank then the limitations of 35 IAC 219.122(b) shall not apply [35 IAC 219.121(a)] or if no odor nuisance exists then the limitation of 35 IAC 219.122(b) shall only apply when the tank is used to store a volatile organic liquid with a vapor pressure of 2.5 psia or greater at 70^0 F [35 IAC 219.122(c)].

c. No person shall cause or allow the transfer of gasoline from any delivery vessel into any stationary tank at gasoline dispensing

operation, unless such tank is equipped with a submerged loading pipe [35 IAC 219.583(a)(1)].

7.7.4 Non-Applicability of Regulations of Concern

a. The affected storage tank is not subject to the requirements of 35 IAC 219.121, because the tank is less than 40,000 gal.

b. The affected storage tank is not subject to the requirements of 35 IAC 219.122(a), because the tank is less than 40,000 gal.

7.7.5 Operational and Production Limits and Work Practices

Each affected storage tank is subject to the applicable provisions of Condition 7.7.3. The affected storage tank shall be equipped and operated with a submerged loading pipe, submerged fill, or an equivalent device approved by the Illinois EPA, pursuant to 35 IAC 219.122(b) and/or 219.583(a). (The Illinois EPA has not approved use of other equivalent equipment in lieu of a submerged loading pipe or submerged loading fill.)

7.7.6 Emission Limitations

Emissions and operation of equipment shall not exceed the following limits:

Tank	Gasoline throughput gal/yr	VOM Emissions T/yr
Zone 3 gasoline tank (AST-5)	2000	0.0011
Zone 4 gasoline tank (GT-4)	100000	0.043
Zone 7 Brass maintenance gasoline tank (AST-2)	4600	0.0026
Zone 17 gasoline tank (AST-16)	9000	0.045

These limits are based on representations of the maximum emissions resulting from the maximum yearly gasoline throughput indicated in the permit application.

The source has requested that the Illinois EPA establish emission limitations and other appropriate terms and conditions in this permit that

limit the VOM emissions from the affected other emission units (Refer Section 7.3 of this permit) below the levels that would trigger the applicability of control requirements specified in 35 IAC 219.986, consistent with the information provided in the CAAPP application [T1N].

7.7.7 Testing Requirements

None

7.7.8 Inspection and Monitoring Requirements

None

7.7.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected tank to demonstrate compliance with Condition 7.7.5 and 7.7.6 pursuant to Section 39.5(7) of the Act:

a. Design information for the tank showing the presence of a submerged loading pipe or submerged fill;

b. Maintenance and repair records for the tank, as related to the repair or replacement of the loading pipe;

c. The throughput of the affected storage tanks, gal/yr; and

d. The annual VOM emissions from the affected storage tanks based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.7.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected storage tank with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Any loading of gasoline or other VOL into an affected tanks that was not in compliance with Condition 7.7.5, e.g., no "submerged loading pipe or submerged fill" within five days of becoming aware of the noncompliance status. This notification shall include a description of the event, the cause for the noncompliance, actions taken to correct the noncompliance and the steps taken to avoid future noncompliance.

b. Any storage of gasoline or other VOL in an affected tanks that is out of compliance with the control requirements (Condition 7.7.5) due to damage, deterioration, or other condition of the loading pipe, within 30 days of becoming aware of the noncompliance status. This notification shall include a description of the event, the cause for the noncompliance, actions taken to correct the noncompliance, and the steps to be taken to avoid future noncompliance.

7.7.11 Operational Flexibility/Anticipated Operating Scenarios

The Permittee is authorized to make the following physical or operational change with respect to an affected tank without prior notification to the Illinois EPA or revision of this permit. This condition does not affect the Permittee's obligation to properly obtain a construction permit in a timely manner for any activity constituting construction or modification of the source, as defined in 35 IAC 201.102:

a. Changes to components related to either the "submerged loading pipe or submerged fill", including addition of new components and repair and replacement of components; and

b. Changes in the material stored in a tank provided the tank continue to comply with the Conditions of Section 7.7.5 of this permit.

7.7.12 Compliance Procedures

Compliance with the emission limits in condition 5.5 and 7.7.6 shall be based on the recordkeeping requirements in Condition 7.7.9 and the emission factors and formulas listed below:

For the purpose of estimating VOM emissions from the affected storage tank, the current version 3.1 of the TANKS program is acceptable, or any subsequent program submitted by the Permittee and accepted by Illinois EPA.

7.8 Unit 08: Nitration Tank

7.8.1 Description

Resorcinol is converted to trinitroresorcinol (styphnic acid) by a two-stage reaction. In the first stage, resorcinol is converted to sulfonic acid by means of a reaction with sulfuric acid. In the second stage, the sulfonic acid is converted to trinitroresorcinol in the nitration tank by means of a reaction with nitric acid. NOx is released from the nitration tank during this reaction. The trinitroresorcinol is subsequently used in the preparation of lead styphnate compounds. Less than 100 tons of nitric acid (100% basis) is used in this process annually.The gasoline storage tanks are used to dispense gasoline to general plant vehicles.

7.8.2 List of Emission Equipment and Pollution Control Equipment

Description	Emission Control	Date Constructed
Nitration Tank (NT-2)	None	--

7.8.3 Applicability Provisions

a. The "affected storage tank", for the purpose of these unit-specific conditions is an emission unit described in conditions 7.8.1 and 7.8.2.

b. Existing Industrial Processes. No person shall cause or allow the emission of nitrogen oxides into the atmosphere from any existing process producing products of organic nitrations and/or oxidations using nitric acid to exceed 5.0 kg of nitrogen oxides (expressed as nitrogen dioxide) per metric tonne of nitric acid (100 percent acid basis) used in such process (10.0 lbs/T). [35 IAC 217.301(b)]

Exemption. 35 IAC 217.301(b) shall not apply to any industrial process using less than 90.7 metric tonnes (100 tons) of nitric acid (100 percent acid basis) annually or which produces less than 907 kg (1 ton) of nitrogen oxides (expressed as nitrogen dioxide) per year. [35 IAC 217.301(c)]

The Permittee has provided justification that the above process emission unit is exempt from the requirements of 35 IAC 217.301(a) and (b).

c. The affected process emission source is subject to 35 IAC 212.322(a), which provides that:

No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 (see also Attachment 2) [35 IAC 212.322(a)].

Compliance with this limit is assured based upon the inherent nature of the affected emission unit.

7.8.4 Non-Applicability of Regulations of Concern

a. The affected tank is not subject to any of the requirements of 35 IAC 219, because organic materials are neither stored or processed in the tank.

7.8.5 Operational and Production Limits and Work Practices

a. Organic materials shall neither be stored or processed in the affected process emission unit.

b. Only sulfuric acid, nitric acid, resorcinol and water shall be processed in the affected emission unit.

b. Total nitric acid usage shall not exceed 100 tons per year on a 100% acid basis.

7.8.6 Emission Limitations

There are no specific emission limitations for this unit, however, there are source wide emission limitations in Condition 5.5 that include this unit.

7.8.7 Testing Requirements

None

7.8.8 Inspection and Monitoring Requirements

None

7.8.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for each affected tank to demonstrate compliance with Condition 7.8.5 and 7.8.6 pursuant to Section 39.5(7) of the Act:

a. Nitric acid usage on a 100% acid basis

b. Annual PM and NO_x emissions from the affected storage tanks based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.8.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of noncompliance of the affected storage tank with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. Any loading of any material not described in Condition 7.8.5 within five days of becoming aware of the noncompliance status. This notification shall include a description of the event, the cause for the noncompliance, actions taken to correct the noncompliance and the steps taken to avoid future noncompliance.

b. Nitric acid usage in excess of 100 tons per year on a 100% acid basis within five days of becoming aware of the noncompliance status. This notification shall include a description of the event, the cause for the noncompliance, actions taken to correct the noncompliance and the steps taken to avoid future noncompliance.

c. Annual NO_x emissions from the affected storage tanks based on the material stored, the tank throughput, and the applicable emission factors and formulas with supporting calculations.

7.8.11 Operational Flexibility/Anticipated Operating Scenarios

None

7.8.12 Compliance Procedures

Compliance with the emission limits in condition 5.5 and 7.8.6 shall be based on the recordkeeping requirements in Condition 7.8.9 and the emission factors and formulas listed below:

NO_x emissions = 42 lb./ton acid x Acid Usage (tons) x 0.66

42 lb./ton acid = Emission factor taken from the USDHEW publication AP-67 "Control Techniques for Nitrogen Oxides Emissions from Stationary Sources"

0.66 Percentage of nitric acid solution

7.9 Unit 09 - Fugitive emissions

7.9.1 Description

Fugitive emissions are defined as those emissions, which would not reasonably pass through a stack, vent or other functionally equivalent opening.

7.9.2 List of Emission Units

Vehicular Mile Traveled (VMT) on roads.
Material storage piles.
Contact cooling towers.

7.9.3 Applicability Provisions and Applicable Regulations

a. The “affected fugitive emission sources” for the purpose of these unit-specific conditions, are emission sources described in Conditions 7.9.1 and 7.9.2.

7.9.4 Non-Applicability of Regulations of Concern

a. The affected fugitive emission sources of PM are not subject to the requirements of 35 IAC 212.321, Emissions of Particulate Matter from Process Emission Units, because due to the unique nature of this process, such rules cannot reasonably be applied.

7.9.5 Operational and Production Limits and Work Practices

None

7.9.6 Emission Limitations

In addition to Condition 5.2.2 and the source-wide emission limitations in Condition 5.5, the fugitive emission sources are subject to the following:

None

7.9.7 Testing Requirements

None

7.9.8 Inspection Requirements

None

7.9.9 Recordkeeping Requirements

In addition to the records required by Condition 5.6, the Permittee shall maintain records of the following items for the affected fugitive emission sources to demonstrate compliance with Conditions 5.5.1 and 7.9.7, pursuant to Section 39.5(7)(b) of the Act:

a. Paved and unpaved roads (VMT/mo, VMT/yr);

b. Storage pile activity (T/mo, T/yr);

c. Cooling tower flow rate (gallons/mo, gallons/yr); and

c. Emissions as calculated by Condition 7.9.12 (T/mo, T/yr).

7.9.10 Reporting Requirements

The Permittee shall promptly notify the Illinois EPA, Compliance Section of deviations of the affected fugitive emission source with the permit requirements as follows, pursuant to Section 39.5(7)(f)(ii) of the Act. Reports shall describe the probable cause of such deviations, and any corrective actions or preventive measures taken:

a. If there is a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report within 30 days after the deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the deviation and efforts to reduce emissions and future occurrences.

7.9.11 Operational Flexibility/Anticipated Operating Scenarios

N/A

7.9.12 Compliance Procedures

Compliance with the limits in Conditions 5.5.1 shall be based on the recordkeeping requirements in Condition 7.8.9 and the emission factors listed below:

a. PM Emissions from Vehicular Mile Traveled (VMT) on roads:

PM Emission factors for paved roads:

0.168 lb/VMT for loaded tractor trailers.
0.022 lb/VMT for cars & trucks.

PM Emission factors for unpaved roads:

6.100 lb/VMT for loaded tractor trailers.
0.369 lb/VMT for cars & trucks.

The above emission factors and rates are from the application derived from various USEPA publications such as AP-42, Control of Open Dust Sources (EPA-450/3-88-008) and AIRS.

b. PM Emissions from storage piles:

Total emissions = adding to pile + wind erosion during storage + removing from pile

Material	Batch drop Lb/ton	Wind erosion-protected lb/day/acre	Wind erosion-unprotected lb/day/acre
Salt	0.0144	1.57	6.30
Cinders	0.0144	1.57	6.30
Skimmings	0.0743	2.62	10.49

The above emission factors and rates are from the application derived from various USEPA publications such as AP-42, Control of Open Dust Sources (EPA-450/3-88-008) and AIRS.

c. PM Emissions from contact cooling towers:

D.C. Casting	0.001773lbs/1000 gallons
Hot Mill	0.001773lbs/1000 gallons

The above emission factors are from the application derived from USEPA publication AP-42, Table 13.41-1, Fifth edition, January 1995.

8.0 GENERAL PERMIT CONDITIONS

8.1 Permit Shield

Pursuant to Section 39.5(7)(j) of the Act, the Permittee has requested and has been granted a permit shield. This permit shield provides that compliance with the conditions of this permit shall be deemed compliance with applicable requirements which were applicable as of the date the proposed permit for this source was issued, provided that either the applicable requirements are specifically identified within this permit, or the Illinois EPA, in acting on this permit application, has determined that other requirements specifically identified are not applicable to this source and this determination (or a concise summary thereof) is included in this permit.

This permit shield does not extend to applicable requirements which are promulgated after _____**{insert public notice start date}** (the date of issuance of the draft permit) unless this permit has been modified to reflect such new requirements.

8.2 Applicability of Title IV Requirements (Acid Deposition Control)

This source is not an affected source under Title IV of the CAA and is not subject to requirements pursuant to Title IV of the CAA.

8.3 Emissions Trading Programs

No permit revision shall be required for increases in emissions allowed under any USEPA approved economic incentives, marketable permits, emissions trading, and other similar programs or processes for changes that are provided for elsewhere in this permit and that are authorized by the applicable requirement [Section 39.5(7)(o)(vii) of the Act].

As of the date of issuance of this permit, there are no such economic incentive, marketable permit or emission trading programs that have been approved by USEPA.

8.4 Operational Flexibility/Anticipated Operating Scenarios

8.4.1 Changes Specifically Addressed by Permit

Physical or operational changes specifically addressed by the Conditions of this permit that have been identified as not requiring Illinois EPA notification may be implemented without prior notice to the Illinois EPA.

8.4.2 Changes Requiring Prior Notification

The Permittee is authorized to make physical or operational changes that contravene express permit terms without applying for or obtaining an amendment to this permit, provided that [Section 39.5(12)(a)(i) of the Act]:

a. The changes do not violate applicable requirements;

b. The changes do not contravene federally enforceable permit terms or conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements;

c. The changes do not constitute a modification under Title I of the CAA;

d. Emissions will not exceed the emissions allowed under this permit following implementation of the physical or operational change; and

e. The Permittee provides written notice to the Illinois EPA, Division of Air Pollution Control, Permit Section, at least 7 days before commencement of the change. This notice shall:

i. Describe the physical or operational change;

ii. Identify the schedule for implementing the physical or operational change;

iii. Provide a statement of whether or not any New Source Performance Standard (NSPS) is applicable to the physical or operational change and the reason why the NSPS does or does not apply;

iv. Provide emission calculations which demonstrate that the physical or operational change will not result in a modification; and

v. Provide a certification that the physical or operational change will not result in emissions greater than authorized under the Conditions of this permit.

8.5 Testing Procedures

Tests conducted to measure composition of materials, efficiency of pollution control devices, emissions from process or control equipment, or other parameters shall be conducted using standard test methods. Documentation of the test date, conditions, methodologies, calculations, and test results shall be retained pursuant to the recordkeeping procedures of this permit. Reports of any tests conducted as required by this permit or as the result of a request by the Illinois EPA shall be submitted as specified in Condition 8.6.

8.6 Reporting Requirements

8.6.1 Monitoring Reports

If monitoring is required by any applicable requirements or conditions of this permit, a report summarizing the required monitoring results, as specified in the conditions of this permit, shall be submitted to the Air Compliance Section of the Illinois EPA every six months as follows [Section 39.5(7)(f) of the Act]:

Monitoring Period	Report Due Date
January - June	September 1
July - December	March 1

All instances of deviations from permit requirements must be clearly identified in such reports. All such reports shall be certified in accordance with Condition 9.9.

8.6.2 Test Notifications

Unless otherwise specified elsewhere in this permit, a written test plan for any test required by this permit shall be submitted to the Illinois EPA for review at least 60 days prior to the testing pursuant to Section 39.5(7)(a) of the Act. The notification shall include at a minimum:

a. The name and identification of the affected unit(s);

b. The person(s) who will be performing sampling and analysis and their experience with similar tests;

c. The specific conditions under which testing will be performed, including a discussion of why these conditions will be representative of maximum emissions and the means by which the operating parameters for the source and any control equipment will be determined;

d. The specific determination of emissions and operation which are intended to be made, including sampling and monitoring locations;

e. The test method(s) which will be used, with the specific analysis method, if the method can be used with different analysis methods;

f. Any minor changes in standard methodology proposed to accommodate the specific circumstances of testing, with justification; and

g. Any proposed use of an alternative test method, with detailed justification.

8.6.3 Test Reports

Unless otherwise specified elsewhere in this permit, the results of any test required by this permit shall be submitted to the Illinois EPA within 60 days of completion of the testing. The test report shall include at a minimum [Section 39.5(7)(e)(i) of the Act]:

a. The name and identification of the affected unit(s);

b. The date and time of the sampling or measurements;

c. The date any analyses were performed;

d. The name of the company that performed the tests and/or analyses;

e. The test and analytical methodologies used;

f. The results of the tests including raw data, and/or analyses including sample calculations;

g. The operating conditions at the time of the sampling or measurements; and

h. The name of any relevant observers present including the testing company's representatives, any Illinois EPA or USEPA representatives, and the representatives of the source.

8.6.4 Reporting Addresses

a. The following addresses should be utilized for the submittal of reports, notifications, and renewals:

i. Illinois EPA - Air Compliance Section

Illinois Environmental Protection Agency
Bureau of Air
Compliance Section (MC 40)
P.O. Box 19276
Springfield, Illinois 62794-9276

ii. Illinois EPA - Air Regional Field Office

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

iii. Illinois EPA - Air Permit Section

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)

P.O. Box 19506
Springfield, Illinois 62794-9506

iv. USEPA Region 5 - Air Branch

USEPA (AE - 17J)
Air & Radiation Division
77 West Jackson Boulevard
Chicago, Illinois 60604

b. Unless otherwise specified in the particular provision of this permit, reports shall be sent to the Illinois EPA - Air Compliance Section with a copy sent to the Illinois EPA - Air Regional Field Office.

8.7 Obligation to Comply with Title I Requirements

Any term, condition, or requirement identified in this permit by T1, T1R, or T1N is established or revised pursuant to 35 IAC Part 203 or 40 CFR 52.21 ("Title I provisions") and incorporated into this permit pursuant to both Section 39.5 and Title I provisions. Notwithstanding the expiration date on the first page of this permit, the Title I conditions remain in effect pursuant to Title I provisions until the Illinois EPA deletes or revises them in accordance with Title I procedures.

9.0 STANDARD PERMIT CONDITIONS

9.1 Effect of Permit

9.1.1 The issuance of this permit does not release the Permittee from compliance with State and Federal regulations which are part of the Illinois State Implementation Plan, as well as with other applicable statutes and regulations of the United States or the State of Illinois or applicable ordinances, except as specifically stated in this permit and as allowed by law and rule [Section 39.5(7)(j)(iv) of the Act].

9.1.2 In particular, this permit does not alter or affect the following:

a. The provisions of Section 303 (emergency powers) of the CAA, including USEPA's authority under that Section;

b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program consistent with Section 408(a) of the CAA; and

d. The ability of USEPA to obtain information from a source pursuant to Section 114 (inspections, monitoring, and entry) of the CAA.

9.1.3 Notwithstanding the conditions of this permit specifying compliance practices for applicable requirements, any person (including the Permittee) may also use other credible evidence to establish compliance or noncompliance with applicable requirements.

9.2 General Obligations of Permittee

9.2.1 Duty to Comply

The Permittee must comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the CAA and the Act, and is grounds for any or all of the following: enforcement action,

permit termination, revocation and reissuance, modification, or denial of a permit renewal application [Section 39.5(7)(o)(i) of the Act].

The Permittee shall meet applicable requirements that become effective during the permit term in a timely manner unless an alternate schedule for compliance with the applicable requirement is established.

9.2.2 Duty to Maintain Equipment

The Permittee shall maintain all equipment covered under this permit in such a manner that the performance or operation of such equipment shall not cause a violation of applicable requirements.

9.2.3 Duty to Cease Operation

No person shall cause, threaten or allow the continued operation of any emission unit during malfunction or breakdown of the emission unit or related air pollution control equipment if such operation would cause a violation of an applicable emission standard, regulatory requirement, ambient air quality standard or permit limitation unless such malfunction or breakdown is allowed by a permit condition [Section 39.5(6)(c) of the Act].

9.2.4 Disposal Operations

The source shall be operated in such a manner that the disposal of air contaminants collected by the equipment operations, or activities shall not cause a violation of the Act or regulations promulgated thereunder.

9.2.5 Duty to Pay Fees

The Permittee must pay fees to the Illinois EPA consistent with the fee schedule approved pursuant to Section 39.5(18) of the Act, and submit any information relevant thereto [Section 39.5(7)(o)(vi) of the Act]. The check should be payable to "Treasurer, State of Illinois" and sent to: Fiscal Services Section, Illinois Environmental Protection Agency, P.O. Box 19276, Springfield, Illinois 62794-9276.

9.3 Obligation to Allow Illinois EPA Surveillance

Upon presentation of proper credentials and other documents, the Permittee shall allow the Illinois EPA, or an authorized representative to perform the following [Section 39.5(7)(a) and (p)(ii) of the Act and 415 ILCS 5/4]:

a. Enter upon the Permittee's premises where an actual or potential emission unit is located; where any regulated equipment, operation, or activity is located or where records must be kept under the conditions of this permit;

b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

c. Inspect during hours of operation any sources, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;

d. Sample or monitor any substances or parameters at any location:

   i. At reasonable times, for the purposes of assuring permit compliance; or

   ii. As otherwise authorized by the CAA, or the Act.

e. Obtain and remove samples of any discharge or emission of pollutants authorized by this permit; and

f. Enter and utilize any photographic, recording, testing, monitoring, or other equipment for the purposes of preserving, testing, monitoring, or recording any activity, discharge or emission at the source authorized by this permit.

9.4 Obligation to Comply with Other Requirements

The issuance of this permit does not release the Permittee from applicable State and Federal laws and regulations, and applicable local ordinances addressing subjects other than air pollution control.

9.5 Liability

9.5.1 Title

This permit shall not be considered as in any manner affecting the title of the premises upon which the permitted source is located.

9.5.2 Liability of Permittee

This permit does not release the Permittee from any liability for damage to person or property caused by or resulting from the construction, maintenance, or operation of the sources.

9.5.3 Structural Stability

This permit does not take into consideration or attest to the structural stability of any unit or part of the source.

9.5.4 Illinois EPA Liability

This permit in no manner implies or suggests that the Illinois EPA (or its officers, agents or employees) assumes any liability, directly or indirectly, for any loss due to damage, installation, maintenance, or operation of the source.

9.5.5 Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege [Section 39.5(7)(o)(iv) of the Act].

9.6 Recordkeeping

9.6.1 Control Equipment Maintenance Records

A maintenance record shall be kept on the premises for each item of air pollution control equipment. As a minimum, this record shall show the dates of performance and nature of preventative maintenance activities.

9.6.2 Records of Changes in Operation

A record shall be kept describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under this permit, and the

emissions resulting from those changes [Section 39.5(12)(b)(iv) of the Act].

9.6.3 Retention of Records

a. Records of all monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit [Section 39.5(7)(e)(ii) of the Act].

b. Other records required by this permit shall be retained for a period of at least 5 years from the date of entry unless a longer period is specified by a particular permit provision.

9.7 Annual Emissions Report

The Permittee shall submit an annual emissions report to the Illinois EPA, Compliance Section no later than May 1 of the following year, as required by 35 IAC Part 254.

9.8 Requirements for Compliance Certification

Pursuant to Section 39.5(7)(p)(v) of the Act, the Permittee shall submit annual compliance certifications. The compliance certifications shall be submitted no later than May 1 or more frequently as specified in the applicable requirements or by permit condition. The compliance certifications shall be submitted to the Air Compliance Section, Air Regional Field Office, and USEPA Region 5 – Air Branch. The addresses for the submittal of the compliance certifications are provided in Condition 8.6.4 of this permit.

a. The certification shall include the identification of each term or condition of this permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, both currently and over the reporting period consistent with the conditions of this permit.

b. All compliance certifications shall be submitted to USEPA Region 5 in Chicago as well as to the Illinois EPA.

c. All compliance reports required to be submitted shall include a certification in accordance with Condition 9.9.

9.9 Certification

Any document (including reports) required to be submitted by this permit shall contain a certification by a responsible official of the Permittee that meets the requirements of Section 39.5(5) of the Act [Section 39.5(7)(p)(i) of the Act]. An example Certification by a Responsible Official is included as an attachment to this permit.

9.10 Defense to Enforcement Actions

9.10.1 Need to Halt or Reduce Activity Not a Defense

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit [Section 39.5(7)(o)(ii) of the Act].

9.10.2 Emergency Provision

a. An emergency shall be an affirmative defense to an action brought for noncompliance with the technology-based emission limitations under this permit if the following conditions are met through properly signed, contemporaneous operating logs, or other relevant evidence:

i. An emergency occurred as provided in Section 39.5(7)(k) of the Act and the Permittee can identify the cause(s) of the emergency. Normally, an act of God such as lightning or flood is considered an emergency;

ii. The permitted source was at the time being properly operated;

iii. The Permittee submitted notice of the emergency to the Illinois EPA within two working days of the time when

emission limitations were exceeded due to the emergency. This notice must contain a detailed description of the emergency, any steps taken to mitigate emissions, and corrective actions taken; and

iv. During the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission limitations, standards, or regulations in this permit.

b. This provision is in addition to any emergency or upset provision contained in any applicable requirement. This provision does not relieve a Permittee of any reporting obligations under existing federal or state laws or regulations.

9.11 Permanent Shutdown

This permit only covers emission units and control equipment while physically present at the indicated source location(s). Unless this permit specifically provides for equipment relocation, this permit is void for the operation or activity of any item of equipment on the date it is removed from the permitted location(s) or permanently shut down. This permit expires if all equipment is removed from the permitted location(s), notwithstanding the expiration date specified on this permit.

9.12 Reopening and Reissuing Permit for Cause

9.12.1 Permit Actions

This permit may be modified, reopened, and reissued, for cause pursuant to Section 39.5(15) of the Act. The filing of a request by the Permittee for a permit modification, revocation, and reissuance, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition [Section 39.5(7)(o)(iii) of the Act].

9.12.2 Reopening and Revision

This permit must be reopened and revised if any of the following occur [Section 39.5(15)(a) of the Act]:

a. Additional requirements become applicable to the equipment covered by this permit and three or more years remain before expiration of this permit;

b. Additional requirements become applicable to an affected source for acid deposition under the acid rain program;

c. The Illinois EPA or USEPA determines that this permit contains a material mistake or inaccurate statement when establishing the emission standards or limitations, or other terms or conditions of this permit; and

d. The Illinois EPA or USEPA determines that this permit must be revised to ensure compliance with the applicable requirements of the Act.

9.12.3 Inaccurate Application

The Illinois EPA has issued this permit based upon the information submitted by the Permittee in the permit application. Any misinformation, false statement or misrepresentation in the application shall be grounds for revocation under Section 39.5(15)(b) of the Act.

9.12.4 Duty to Provide Information

The Permittee shall furnish to the Illinois EPA, within a reasonable time specified by the Illinois EPA any information that the Illinois EPA may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to the Illinois EPA copies of records required to be kept by this permit, or for information claimed to be confidential, the Permittee may furnish such records directly to USEPA along with a claim of confidentiality [Section 39.5(7)(o)(v) of the Act].

9.13 Severability Clause

The provisions of this permit are severable, and should any one or more be determined to be illegal or unenforceable, the validity of the other provisions shall not be affected. The rights and obligations of the Permittee shall be construed and

enforced as if this permit did not contain the particular provisions held to be invalid and the applicable requirements underlying these provisions shall remain in force [Section 39.5(7)(i) of the Act].

9.14 Permit Expiration and Renewal

The right to operate terminates on the expiration date unless the Permittee has submitted a timely and complete renewal application. For a renewal to be timely it must be submitted no later than 9 and no sooner than 12 months prior to expiration. The equipment may continue to operate during the renewal period until final action is taken by the Illinois EPA, in accordance with the original permit conditions [Section 39.5(5)(l), (n), and (o) of the Act].

10.0 ATTACHMENTS

10.1 Attachment 1 Emissions of Particulate Matter from New Process Emission Units

10.1.1 Process Emission Units for Which Construction or Modification Commenced On or After April 14, 1972

a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.321 [35 IAC 212.321(a)].

b. Interpolated and extrapolated values of the data in subsection (c) of 35 IAC 212.321 shall be determined by using the equation [35 IAC 212.321(b)]:

$$E = A(P)^B$$

Where:

P = Process weight rate; and
E = Allowable emission rate; and,

i. Up to process weight rates of 408 Mg/hr (450 ton/hr):

	Metric	English
P	Mg/hr	Ton/hr
E	kg/hr	Lb/hr
A	1.214	2.54
B	0.534	0.534

ii. For process weight rate greater than or equal to 408 Mg/hr (450 ton/hr):

	Metric	English
P	Mg/hr	Ton/hr

E	kg/hr	Lb/hr
A	11.42	24.8
B	0.16	0.16

c. Limits for Process Emission Units For Which Construction or Modification Commenced On or After April 19, 1972 [35 IAC 212.321(c)]:

Metric		English	
P	E	P	E
Mg/hr	kg/hr	ton/hr	lb/hr
0.05	0.25	0.05	0.55
0.1	0.29	0.10	0.77
0.2	0.42	0.2	1.10
0.3	0.64	0.30	1.35
0.4	0.74	0.40	1.58
0.5	0.84	0.50	1.75
0.7	1.00	0.75	2.40
0.9	1.15	1.00	2.60
1.8	1.66	2.00	3.70
2.7	2.1	3.00	4.60
3.6	2.4	4.00	5.35
4.5	2.7	5.00	6.00
9.0	3.9	10.00	8.70
13.0	4.8	15.00	10.80
18.0	5.7	20.00	12.50
23.0	6.5	25.00	14.00
27.0	7.2	30.00	15.60
32.0	7.7	35.00	17.00
36.0	8.2	40.00	18.20
41.0	8.8	45.00	19.20
45.0	9.3	50.00	20.50
90.0	13.4	100.00	29.50
140.0	17.0	150.00	37.00
180.0	19.4	200.00	43.00
230.0	22.0	250.00	48.50
270.0	24.0	300.00	53.00
320.0	26.0	350.00	58.00
360.0	28.0	400.00	62.00
408.0	30.1	450.00	66.00

454.0	30.4	500.00	67.00

Where:

P = Process weight rate in Mg/hr or T/hr; and
E = Allowable emission rate in Kg/hr or lbs/hr

10.2 Attachment 2 Emissions of Particulate Matter from Existing Process Emission Units

10.2.1 Process Emission Units for Which Construction or Modification Commenced Prior to April 14, 1972

a. No person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14,1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in subsection (c) of 35 IAC 212.322 [35 IAC 212.322(a)].

b. Interpolated and extrapolated values of the data in subsection (c) of this Section shall be determined by using the equation [35 IAC 212.322(b)]:

$$E = C + A(P)^B$$

Where:

P = Process weight rate; and,
E = Allowable emission rate; and,

i. For process weight rates up to 27.2 Mg/hr (30 T/hr):

	Metric	English
P	Mg/hr	ton/hr
E	kg/hr	lb/hr
A	1.985	4.10
B	0.67	0.67

ii. For process weight rates in excess or 27.2 Mg/hr (30 T/hr):

	Metric	English
P	Mg/hr	ton/hr
E	kg/hr	lb/hr

A	25.21	55.0
B	0.11	0.11
C	-18.4	-40.0

c. Limits for Process Emission Units For Which Construction or Modification Commenced Prior to April 14, 1972

	Metric	English	
P	E	P	E
Mg/hr	kg/hr	T/hr	lbs/hr
0.05	0.27	0.05	0.55
0.1	0.42	0.10	0.87
0.2	0.68	0.20	1.40
0.3	0.89	0.30	1.83
0.4	1.07	0.40	2.22
0.5	1.25	0.50	2.58
0.7	1.56	0.75	3.38
0.9	1.85	1.00	4.10
1.8	2.9	2.00	6.52
2.7	3.9	3.00	8.56
3.6	4.7	4.00	10.40
4.5	5.4	5.00	12.00
9.	8.7	10.00	19.20
13.	11.1	15.00	25.20
18.	13.8	20.00	30.50
23.	16.2	25.00	35.40
27.2	18.15	30.00	40.00
32.0	18.8	35.00	41.30
36.0	19.3	40.00	42.50
41.0	19.8	45.00	43.60
45.0	20.2	50.00	44.60
90.0	23.2	100.00	51.20
140.0	25.3	150.00	55.40
180.0	26.5	200.00	58.60
230.0	27.7	250.00	61.00
270.0	28.5	300.00	63.10
320.0	29.4	350.00	64.90
360.0	30.0	400.00	66.20
400.0	30.6	450.00	67.70
454.0	31.3	500.00	69.00

Where:

P = Process weight rate in Mg/hr or T/hr; and
E = Allowable emission rate in Kg/hr or lbs/hr

10.3 Attachment 3 Example Certification by a Responsible Official

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Signature: _____

Name: _____

Official Title: _____

Telephone No.: _____

Date Signed: _____

10.4 Attachment 4 Guidance on Revising This Permit

The Permittee must submit an application to the Illinois EPA using the appropriate revision classification in accordance with Sections 39.5(13) and (14) of the Act and 35 IAC 270.302. Specifically, there are currently three classifications for revisions to a CAAPP permit. These are:

1. Administrative Permit Amendment;
2. Minor Permit Modification; and
3. Significant Permit Modification.

The Permittee must determine, request, and submit the necessary information to allow the Illinois EPA to use the appropriate procedure to revise the CAAPP permit. A brief explanation of each of these classifications follows.

1. Administrative Permit Amendment

- Corrects typographical errors;
- Identifies a change in the name, address, or phone number of any person identified in the permit, or provides a similar minor administrative change at the source;
- Requires more frequent monitoring or reporting by the Permittee;
- Allows for a change in ownership or operational control of the source where no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittees has been submitted to the Illinois EPA;
- Incorporates into the CAAPP permit a construction permit, provided the conditions of the construction permit meet the requirements for the issuance of CAAPP permits; or
- Incorporates into the CAAPP permit revised limitations or other requirements resulting from the application of an approved economic incentives rule, marketable permits rule, or generic emissions trading rule.

2. Minor Permit Modification

- Do not violate any applicable requirement;
- Do not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit;

- Do not require a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis;
- Do not seek to establish or change a permit term or condition for which there is no corresponding underlying requirement and which avoids an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:

- A federally enforceable emissions cap assumed to avoid classification as a modification under any provision of Title I of the CAA; and
- An alternative emissions limit approved pursuant to regulations promulgated under Section 112(i)(5) of the CAA.

- Are not modifications under any provision of Title I of the CAA; and
- Are not required to be processed as a significant permit modification.

An application for a minor permit modification shall include the following:

- A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs;
- The source's suggested draft permit/conditions;
- Certification by a responsible official that the proposed modification meets the criteria for use of minor permit modification procedures and a request that such procedures be used; and
- Information as contained on form 271-CAAPP for the Illinois EPA to use to notify USEPA and affected States.

3. Significant Permit Modification

- Applications that do not qualify as either minor permit modifications or as administrative permit amendments;
- Applications requesting a significant change in existing monitoring permit terms or conditions;
- Applications requesting a relaxation of reporting or recordkeeping requirements; and
- Cases in which, in the judgment of the Illinois EPA, action on an

application for modification would require decisions to be made on technically complex issues.

An application for a significant permit modification shall include the following:

- A detailed description of the proposed change(s), including all physical changes to equipment, changes in the method of operation, changes in emissions of each pollutant, and any new applicable requirements which will apply as a result of the proposed change. Note that the Permittee need only submit revised forms for equipment and operations that will be modified.

The Illinois EPA requires the information on the following appropriate forms to be submitted in accordance with the proper classification:

- Form 273-CAAPP, REQUEST FOR ADMINISTRATIVE PERMIT AMENDMENT FOR CAAPP PERMIT; or
- Form 271-CAAPP, MINOR PERMIT MODIFICATION FOR CAAPP PERMIT; or
- Form 200-CAAPP, APPLICATION FOR CAAPP PERMIT (for significant modification).

Application forms can be obtained from the Illinois EPA website at http://www.epa.state.il.us/air/forms.

Note that the request to revise the permit must be certified for truth, accuracy, and completeness by a responsible official.

Note that failure to submit the required information may require the Illinois EPA to deny the application. The Illinois EPA reserves the right to require that additional information be submitted as needed to evaluate or take final action on applications pursuant to Section 39.5(5)(g) of the Act and 35 IAC 270.305.

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Springfield, Illinois 62794-9506

Application For Construction Permit (For CAAPP Sources Only)	For Illinois EPA use only ID number: Permit number: Date received:

This form is to be used by CAAPP sources to supply information necessary to obtain a construction permit. Please attach other necessary information and completed CAAPP forms regarding this construction/modification project.

Source Information		
1. Source name:		
2. Source street address:		
3. City:		4. Zip code:
5. Is the source located within city limits?		☐ Yes ☐ No
6. Township name:	7. County:	8. ID number:

Owner Information		
9. Name:		
10. Address:		
11. City:	12. State:	13. Zip code:

Operator Information (if different from owner)		
14. Name		
15. Address:		
16. City:	17. State:	18. Zip code:

Applicant Information	
19. Who is the applicant? ☐ Owner ☐ Operator	20. All correspondence to: (check one) ☐ Owner ☐ Operator ☐ Source
21. Attention name and/or title for written correspondence:	

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

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22. Technical contact person for application:	23. Contact person's telephone number:

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

10.4 Attachment 4 Form 199-CAAPP, Application For Construction Permit (For CAAPP Sources Only)

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Summary Of Application Contents		
24.	Does the application address whether the proposed project would constitute a new major source or major modification under each of the following programs: a) Non-attainment New Source Review – 35 IAC Part 203; b) Prevention of Significant Deterioration (PSD) – 40 CFR 52.21; c) Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources – 40 CFR Part 63?	☐ Yes ☐ No
25.	Does the application identify and address all applicable emissions standards, including those found in the following: a) Board Emission Standards – 35 IAC Chapter I, Subtitle B; b) Federal New Source Performance Standards – 40 CFR Part 60; c) Federal Standards for Hazardous Air Pollutants – 40 CFR Parts 61 and 63?	☐ Yes ☐ No
26.	Does the application include a process flow diagram(s) showing all emission units and control equipment, and their relationship, for which a permit is being sought?	☐ Yes ☐ No
27.	Does the application include a complete process description for the emission units and control equipment for which a permit is being sought?	☐ Yes ☐ No
28.	Does the application include the information as contained in completed CAAPP forms for all appropriate emission units and air pollution control equipment, listing all applicable requirements and proposed exemptions from otherwise applicable requirements, and identifying and describing any outstanding legal actions by either the USEPA or the Illinois EPA? Note: The use of "APC" application forms is not appropriate for applications for CAAPP sources. CAAPP forms should be used to supply information.	☐ Yes ☐ No
29.	If the application contains TRADE SECRET information, has such information been properly marked and claimed, and have two separate copies of the application suitable for public inspection and notice been submitted, in accordance with applicable rules and regulations?	☐ Yes ☐ No ☐ Not Applicable, No TRADE

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

10.4 Attachment 4 Form 199-CAAPP, Application For Construction Permit (For CAAPP Sources Only)

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	SECRET information in this application

Note 1: Answering "No" to any of the above may result in the application being deemed incomplete.

Signature Block	
This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.	
30. I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate and complete. Authorized Signature: BY:	
_____ AUTHORIZED SIGNATURE	_____ TITLE OF SIGNATORY
_____ TYPED OR PRINTED NAME OF SIGNATORY	_____ / _____ / _____ DATE

Note 2: An operating permit for the construction/modification permitted in a construction permit must be obtained by applying for the appropriate revision to the source's CAAPP permit, if necessary.

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

10.4 Attachment 4 Form 199-CAAPP, Application For Construction Permit (For CAAPP Sources Only)

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10.6 Attachment 6 Guidance on Renewing This Permit

Timeliness - Pursuant to Section 39.5(5)(n) of the Act and 35 IAC 270.301(d), a source must submit to the Illinois EPA a complete CAAPP application for the renewal of a CAAPP permit not later than 9 months before the date of permit expiration of the existing CAAPP permit in order for the submittal to be deemed timely. Note that the Illinois EPA typically sends out renewal notices approximately 18 months prior to the expiration of the CAAPP permit.

The CAAPP application must provide all of the following information in order for the renewal CAAPP application to be deemed complete by the Illinois EPA:

1. A completed renewal application form 200-CAAPP, APPLICATION FOR CAAPP PERMIT.

2. A completed compliance plan form 293-CAAPP, COMPLIANCE PLAN/SCHEDULE OF COMPLIANCE FOR CAAPP PERMIT.

3. A completed compliance certification form 296-CAAPP, COMPLIANCE CERTIFICATION, signed by the responsible official.

4. Any applicable requirements that became effective during the term of the permit and that were not included in the permit as a reopening or permit revision.

5. If this is the first time this permit is being renewed and this source has not yet addressed CAM, the application should contain the information on form 464-CAAPP, COMPLIANCE ASSURANCE MONITORING (CAM) PLAN.

6. Information addressing any outstanding transfer agreement pursuant to the ERMS.

7. a. If operations of an emission unit or group of emission units remain unchanged and are accurately depicted in previous submittals, the application may contain a letter signed by a

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

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responsible official that requests incorporation by reference of existing information previously submitted and on file with the Illinois EPA. This letter must also include a statement that information incorporated by reference is also being certified for truth and accuracy by the responsible official's signing of the form 200-CAAPP, APPLICATION FOR CAAPP PERMIT and the form 296-CAAPP, COMPLIANCE CERTIFICATION. The boxes should be marked yes on form 200-CAAPP, APPLICATION FOR CAAPP PERMIT, as existing information is being incorporated by reference.

b. If portions of current operations are not as described in previous submittals, then in addition to the information above for operations that remain unchanged, the application must contain the necessary information on all changes, e.g., discussion of changes, new or revised CAAPP forms, and a revised fee form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT, if necessary.

8. Information about all off-permit changes that were not prohibited or addressed by the permit to occur without a permit revision and the information must be sufficient to identify all applicable requirements, including monitoring, recordkeeping, and reporting requirements, for such changes.

9. Information about all changes made under 40 CFR 70.4(b)(12)(i) and (ii) that require a 7-day notification prior to the change without requiring a permit revision.

The Illinois EPA will review all applications for completeness and timeliness. If the renewal application is deemed both timely and complete, the source shall continue to operate in accordance with the terms and conditions of its CAAPP permit until final action is taken on the renewal application.

Notwithstanding the completeness determination, the Illinois EPA may request additional information necessary to evaluate or take final action on the CAAPP renewal application. If such additional information affects

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

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your allowable emission limits, a revised form 292-CAAPP, FEE DETERMINATION FOR CAAPP PERMIT must be submitted with the requested information. The failure to submit to the Illinois EPA the requested information within the time frame specified by the Illinois EPA, may force the Illinois EPA to deny your CAAPP renewal application pursuant to Section 39.5 of the Act.

Application forms may be obtained from the Illinois EPA website at http://www.epa.state.il.us/air/forms.html.

If you have any questions regarding this matter, please contact a permit analyst at 217/782-2113.

Mail renewal applications to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Permit Section (MC 11)
P.O. Box 19506
Springfield, Illinois 62794-9506

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.